Docket:	P.21-07-012
Exhibit No.:	CCSF-004
Date Served:	April 20, 2026 (Errata May 21, 2026)
ALJ:	R. Lirag
Witnesses:	Rabon

PREPARED DIRECT TESTIMONY

OF

GRANT RABON, ASA

ON BEHALF OF

THE CITY AND COUNTY OF SAN FRANCISCO

[PUBLIC VERSION]

APRIL 20, 2026

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Appendices

I. INTRODUCTION

Q. Please state your name, occupation, and business address.

A. My name is Grant Rabon. I am a Partner at NewGen, and I work out of the Austin office of NewGen located at 8140 North Mopac Expressway, Suite 1-240, Austin, Texas 78759.

Q. Please summarize your educational and professional background.

A. I was awarded a Bachelor of Science degree in Chemical Engineering from Texas A&M University in College Station, as well as a Master of Business Administration from the University of Texas at Austin. I am an Accredited Senior Appraiser (ASA) of public utility property certified by the American Society of Appraisers. Since 2005, I have been assisting utilities with the conduct of cost of service and rate design studies, utility appraisals, financial feasibility studies, and other management consulting engagements for electric, natural gas, water, wastewater, and solid waste utilities. Additional information regarding my professional experience is provided in my attached résumé (Appendix I).

Q. On whose behalf are you presenting testimony in this proceeding?

A. I am testifying on behalf of the City and County of San Francisco (City).

Q. Are you sponsoring any Appendices to your testimony?

A. Yes. I am sponsoring the appendices to my testimony, as described below:

1. Résumé of Grant Rabon (Appendix I)
2. G. Rabon, NewGen Strategies & Solutions, *Appraisal of PG&E Electrical Distribution and Transmission Facilities in San Francisco* (2026) (Appendix II)
3. Excerpted Supplemental PG&E Response to DR-CCSF_04-Q04, attachment PGE000082649 (Appendix III)

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my direct testimony is to provide an estimate of Fair Market Value for the land, property and rights that comprise the electric system Pacific Gas and Electric Company (PG&E) owns and operates to provide service within the boundaries of the City, including some facilities located outside of the City that serve the electrical grid in

San Francisco. The land, property and rights will be referred to as the "Subject Property" in my testimony.[1]

III. SUMMARY OF HOW THIS APPRAISAL FITS INTO THE VALUATION PROCESS D.25-10-039 PRESCRIBES

Q. How does your testimony fit into the valuation process D.25-10-039 prescribes?

A. Per Decision (D.) 25-10-039 (the Decision), the appropriate valuation methodology for determining the just compensation of PG&E's land, property and rights combines the appraised value of the property and assets the City will acquire, plus severance damages, including business severance damages (if any), and physical separation costs. The following **Figure 1** Just Compensation Equation shows the variables necessary to calculate total just compensation "(G)" under the Decision:[2]

Figure 1. Just Compensation Equation from D.25-10-039

Total just compensation (G) = Appraised value of CCSF property and assets[7] (D) + Business severance damages (E) + Physical separation costs (F)

Where (E) = Total value of part taken[8] (C) – Appraised value of CCSF property and assets (D)

Where (C) = Value of the whole EUS before taking (A) – Value of the remaining EUS after taking (B)

The main purpose of my testimony is to calculate the appraised value of PG&E's land, property and rights in San Francisco, *i.e.*, component "(D)" in the Just Compensation Equation.

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[1] The Subject Property is described in more detail in Exh. CCSF-002 (Bacalao) and Exh. CCSF-003 (Runde), as well as my written appraisal report, attached to this testimony as Appendix II.

[2] D.25-10-039 at 11.

Q. Has the Commission adopted a standard of value for compensation?

A. Yes. The Commission has adopted "fair market value" as the standard of value for compensation for a utility's assets.[3]

IV. SUMMARY OF APPRAISAL AND RECOMMENDATION

Q. What is your recommended estimate of Fair Market Value for the Subject Property?

A. Based upon information received from PG&E, analysis from the engineering report prepared on behalf of the City by Advisian, Worley Group with Siemens Industry, Inc. (collectively referred to as Advisian-Siemens) and principal author, Dr. Nelson Bacalao, Principal with Siemens PTI, titled *San Francisco Grid Procurement Engineering Services – Asset Valuation, Volumes II and III*, which is appended to Exh. CCSF-002 (Bacalao), and analysis from the real property appraisal report prepared on behalf of the City by Timothy Runde of Runde & Partners, Inc., titled *Appraisal of PG&E Electrical Grid Real Property*, which is appended as Appendix II to Exh. CCSF-003 (Runde), my analysis concludes that **$3,428,000,000** reflects the Fair Market Value of the Subject Property.

Q. Does the decision specify three approaches be considered to determine Fair Market Value?

A. Yes. D.25-10-039 specified three approaches to determine the Fair Market Value: the cost approach, the income approach, and the sales comparison approach.[4] These are also the three valuation approaches that are generally accepted in the appraisal industry.

Q. How did you arrive at your recommended estimate of Fair Market Value?

A. As further described in my appraisal report (Appendix II), and summarized below, I determined my recommended estimate of Fair Market Value after first assessing the value of the Subject Property under the three valuation approaches specified in D.25-10-039, and then determining which of the three approaches most appropriately represents

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[3] *Re Vandenberg Vill. Cmty. Services Dist.* (July 29, 1987) 25 CPUC 2d 20 (recognizing the definition of "fair market value" as codified under the Eminent Domain Law).

[4] D.25-10-039 at 33-34.

the Fair Market Value of PG&E's property given the strengths and weaknesses of each approach. Table 1 summarizes the estimates I derived under each approach.

Table 1
Summary of Indicators of Value

	Indicators of Value
Income Approach:	
Discounted Cash Flow	$ 3,427,534,000
Cost Approach:	
Replacement Cost New	$ 10,216,587,000
Less: Physical Deterioration and Net Salvage	(4,929,460,000)
Less: Functional Obsolescence	-
Less: Economic Obsolescence	(1,859,593,000)
Replacement Cost New Less Depreciation (RCNLD)	$ 3,427,534,000
Original Cost	$ 3,982,273,000
Less: Physical Deterioration and Net Salvage	(1,579,015,000)
Original Cost Less Depreciation (OCLD) – Rate Base Value	$ 2,403,258,000
Sales Comparison Approach:	
Guideline Sale Transactions	$ 3,086,563,000
Estimated Fair Market Value of Subject Property as of July 27, 2021	**$ 3,428,000,000**

Source: Appendix II, Table 5-1

Q. Did the Commission specify which approach to use?

A. The Commission has discretion to assign varying degrees of weight to each of the three approaches, depending on the relevant factual circumstances and expert analysis.[5] However, D.25-10-039 declined to specify how the City should weigh these approaches or to predict which approach will provide just compensation.[6] Instead, it allowed the City

[5] P.21-12-027, *Pacific Gas and Electric Company's (U 39 E) Brief on Standards for Just Compensation*, pp. 5-6 (Jan 17, 2023); City Opening Brief on Just Compensation at 5.

[6] D.25-10-039 at 42, COL 6 ("Prescriptive calculation methodology for parties to follow or to predict which valuation methodology will provide just compensation should not be adopted at this time, and parties should be allowed to submit valuations applying the three methods as they deem appropriate for consideration by the Commission.").

and other parties to submit "valuations applying the three methods as they deem appropriate."[7]

Q. What approach did you conclude renders the most reasonable and supported indication of value?

A. I determined that the estimate derived pursuant to the income approach most fairly represents the Fair Market Value of the Subject Property for several reasons. First, my conclusion accounts for the effect of utility rate regulation in valuing public utility property. Pursuant to the Commission ratemaking process, rate regulated utilities are allowed the opportunity to earn a reasonable rate of return on their rate base (predominately composed of the original cost less depreciation (OCLD) value of the non-contributed[8] plant assets). The income approach closely approximates the rate of return regulated utilities, like PG&E, can earn under this established regulatory regime.

Second, the income approach reflects the reality that, absent unique synergies or motivations of the buyer that would not align with the Fair Market Value concept, an informed buyer would not be willing to pay a price for the Subject Property that exceeds the income value of the property.

Finally, while the indication of value under the sales comparison approach is lower than the indication of value under the income approach, the results of the sales comparison approach generally support the income value for the Subject Property. Specifically, the income approach value is within one standard deviation from the mean under the sales comparison approach.[9]

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[7] D.25-10-039 at 29.

[8] Non-contributed plant assets are those that the utility paid for, as compared with contributed assets, which are donated to the utility by ratepayers or other entities. Generally, the utility is not permitted to include donated assets in rate base.

[9] As discussed *infra*, the sales comparison price is derived from calculating the ratio of purchase price to net plant for a set of transactions, and then multiplying that by the net plant of the Subject Property. The standard deviation referred to here is the standard deviation of those calculated ratios.

Q. What did you conclude is the Fair Market Value of the Subject Property?

A. After consideration of the indicators of value developed using generally accepted approaches to valuation, given the relative strengths and weaknesses of each and the analyses and assumptions used therein, I concluded that the Fair Market Value of the Subject Property as of July 27, 2021 is equal to $3,428,000,000 as indicated by the income approach (rounded to the nearest million dollars). This figure represents what PG&E should receive to fairly compensate it for the value of the property. It does not include severance damages, if any.

V. VALUATION STANDARDS

Q. What date of valuation did you use in your appraisal?

A. The Fair Market Value of the Subject Property was determined as of July 27, 2021, which is the date the City filed its petition for valuation of PG&E's assets in proceeding P.21-07-012.[10]

Q. What definition of Fair Market Value did you assume for your appraisal?

A. My appraisal of the Subject Property assumed the following Fair Market Value definition:

> a) The fair market value of the property taken is the highest price on the date of valuation that would be agreed to by a seller, being willing to sell but under no particular or urgent necessity for so doing, nor obliged to sell, and a buyer, being ready, willing, and able to buy but under no particular necessity for so doing, each dealing with the other with full knowledge of all the uses and purposes for which the property is reasonably adaptable and available.
>
> b) The fair market value of property taken for which there is no relevant, comparable market is its value on the date of valuation as determined by any method of valuation that is just and equitable.[11]

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[10] *See* Pub. Util. Code, § 1411: "The just compensation shall be fixed by the commission as of the day on which the petition was filed with the commission."

[11] *See* Code Civ. Proc., §1263.320.

Q. What is your understanding of the phrase "highest price," as that term is used in the definition of Fair Market Value?

A. The Fair Market Value is the amount that a seller would be willing to accept for the property that the buyer would also be willing to pay, with "full knowledge of all the uses and purposes for which the property is reasonably adaptable and available." [12]

Q. What are the "uses and purposes" for which the Subject Property is "reasonably adaptable and available"?

A. The Subject Property is only "reasonably adaptable and available" for the continued provision of electric utility services to end-users located within the boundaries of the City. Thus, in my opinion, the Fair Market Value of the Subject Property in continued use for the provision of electric utility services best reflects the Subject Property's "highest price." The Subject Property's continued use for electric utility services also reflects the "highest and best use" of the property, which is similarly defined by the American Society of Appraisers as: "the most probable and legal use of a property (including machinery and equipment) that is physically possible, appropriately supported, and financially feasible and that results in the highest value."[13]

VI. APPRAISAL APPROACHES

Q. Please outline the three generally accepted approaches to valuing utility property.

A. The three generally accepted approaches to valuing utility property are specified in D.25-10-039 as: (1) income approach, (2) cost approach, and (3) sales comparison approach.[14] The income approach is based on capitalizing or determining the present value of the prospective net earnings from the Subject Property. The cost approach is based on the premise that an informed buyer would pay no more than the cost of producing a substitute property with the same function or utility as the Subject Property. The sales comparison approach is based on comparing the Subject Property to recent fair market

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[12] *See* Code Civ. Proc., § 1263.320.

[13] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Fourth Edition, Glossary of Terms, p. 537.

[14] The sales comparison approach is also referred to as the market approach.

sales of similar facilities under similar circumstances between a willing buyer and a willing seller. Each of these valuation approaches generates an estimate of a property's Fair Market Value.

Q. Why is more than one valuation approach used to estimate a property's Fair Market Value?

A. Each valuation approach develops value indicators from a different perspective and set of data. However, it is important to note that the three broad approaches are not independent of each other but, instead, are interrelated.[15] For this reason, appraisals of utility property typically develop value indicators based on all three generally accepted approaches to valuation. In addition, Uniform Standards of Professional Appraisal Practice (USPAP) Standards Rule 7-4 requires the appraiser to consider and use all three approaches to valuation (cost, income, and sales comparison) when necessary to provide credible assignment results.

Q. What happens if the values generated by the three approaches differ significantly?

A. Ideally, all three approaches will support the same value conclusion, or at least define a narrow range. If one of the approaches results in an indicator of value that is significantly different from the other indicators of value, the appraiser needs to understand the causes and reconsider the analysis.[16] That is what I was obliged to do for this appraisal given the significantly different value generated by RCNLD (unadjusted) as compared to the income and sales comparison approaches. As discussed in my testimony, I concluded that the RCNLD (without adjustment for functional/economic obsolescence) generated a value that could not be justified vis-à-vis the income earning capability of the Subject Property or the sales comparison approach and, therefore, should be adjusted to reflect the assets' economic obsolescence. This issue is addressed in Sections VI.B and VIII of this testimony.

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[15] Shannon P. Pratt, *Valuing A Business, The Analysis and Appraisal of Closely Held Companies*, Fifth Edition, p. 62.

[16] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Fourth Edition, p. 176.

A. INCOME APPROACH

Q. Please describe the income approach.

A. The Income Approach determines the market value of an income producing property as "the present worth of future benefits (income) to be derived from owning the property."[17] As stated in the Staff Report, it is generally "the most widely used and relied upon in the appraisal of income producing properties."[18] The Subject Property is an income producing property. The income approach estimates the value of the Subject Property by capitalizing or determining the present value of anticipated economic benefits from the property in the future as a going concern. One method of determining value under the income approach is the discounted cash flow (DCF) method, which is cited by D.25-10-039.[19] Under the DCF method, the direct economic benefits derived from continued ownership of the Subject Property are expressed in terms of free cash flow, which represents the total cash flow generated by the going concern that is available to the providers of both debt and equity capital. By discounting the cash flows, the Commission can observe the present worth of the future income that a purchaser would derive from owning the property.

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[17] D.25-10-039 at 10; P.21-12-027, *ALJ's Ruling Soliciting Comments*, Attachment A, *Staff Report*, pp. 12-13 (Mar. 27, 2024) (Staff Report).

[18] Staff Report at 12.

[19] D.25-10-039 at 9-10, 33-34, OP 4.

The calculation of free cash flow is illustrated as follows:

	Annual Operating Revenues
Less:	*Annual Operating Expenses*
Equals:	*Pre-tax Net Operating Income*
Less:	*Income Taxes*
Equals:	*Earnings Before Interest,*
	Depreciation & Amortization (EBIDA)
Less:	*Future Capital Expenditures*
	Net Changes in Working Capital
Equals:	*Free Cash Flow*

I developed a ten-year forecast (2021-2030) of free cash flow and then calculated the present value of this stream of earnings to the date of valuation. It is common to forecast the free cash flow in a DCF analysis for five to ten years, and I used ten years for this analysis. However, because the utility is expected to continue in operation beyond ten years, I added to this value the present value of the calculated terminal value of the business as a going concern into perpetuity (*i.e.*, after the first ten years of forecasted free cash flows).[20] In other words, the terminal value represents the value of the business as a going concern starting at the end of the tenth year of the forecast. Adding the present value of the free cash flows over the first ten years to the present value of the free cash flows after the first ten years provides the total present value of free cash flows as a going concern into perpetuity.

Q. How did you determine the annual operating revenues in the free cash flow formula you cited above?

A. I estimated operating revenues for the Subject Property by developing a revenue requirement specifically for the Subject Property. A utility's revenue requirement is a term of art used in utility rate regulation to reflect the amount of revenue necessary to run

[20] "For assets such as a business whose life may be very long, the terminal value is the present value of the capitalized future value". American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Fourth Edition, Glossary, p. 552.

the utility, including the cost of operating and maintaining the utility. Generally speaking, the revenue requirement establishes the revenue the utility can reasonably expect to earn.

Q. Please describe how you developed the forecasted revenue requirement for the Subject Property.

A. I developed the revenue requirement for the Subject Property over ten years based on estimated operations and maintenance (O&M) expense, taxes, depreciation, and return on rate base. This modeled the typical manner of determining rates permitted for rate regulated utilities. I then assumed the owner of the Subject Property would be allowed to set rates that would recover the revenue requirement. This implicitly assumes that the new owner would have new rates approved annually that reflect the forecasted change in rate base. Rate regulation does not typically allow for so frequent or immediate changes in rates, but this assumption allowed the benefits of increasing plant investments to be promptly recovered, i.e., reflected, in rates and revenues.

Q. What is rate base?

A. Rate base is the invested capital on which a rate regulated utility is allowed to earn a return. As previously mentioned, rate base is predominately composed of the OCLD value of the utility's plant in service, generally excluding contributed plant assets. However, there are miscellaneous other adjustments that may be appropriate, including additions to rate base for items such as cash working capital, prepayments, and inventories, as well as deductions to rate base for items such as accumulated deferred income tax (ADIT).

Q. What is ADIT?

A. ADIT arises from timing differences between the method of computing taxable income for reporting to the Internal Revenue Service and the method of computing income for regulatory accounting and ratemaking purposes. When a buyer acquires new assets, it has the right to restart accelerated depreciation on the property. That accelerated depreciation effectively defers income taxes, which results in the accumulation of deferred income taxes. Under typical utility regulatory accounting rules, ADIT is deducted from rate base. Thus, in my analysis, rate base has been adjusted to account for the new owner (hypothetical buyer) having a different rate base than the balance currently reflected on PG&E's books when allocated to the Subject Property.

Q. How did you then calculate a return on rate base?

A. I calculated a dollar amount for the return on rate base based on percent return multiplied by the rate base. The percent return was developed based on a weighted average cost of capital, assumed to reflect a return approved by the Commission. Rate base was developed based on the OCLD for the Subject Property plant in service, plus an allowance for cash working capital and an inventory of spare equipment,[21] less an estimate of the ADIT as noted above. This analysis is detailed starting at page 4-5 of my Appraisal Report together with Attachment B.

Q. Was the weighted average cost of capital developed based on any assumed buyer?

A. The weighted average cost of capital was developed for a hypothetical buyer, which was assumed to be a taxable corporate entity subject to rate regulation under the jurisdiction of the Commission.

Q. Why not use the City's cost of capital?

A. This would change the standard of value to Investment Value, which is the value to a particular investor. Investment Value may, for various reasons, differ from Fair Market Value.[22] Further, California Code of Civil Procedure Section 1263.330 indicates the Fair Market Value shall not include any increase or decrease in value directly attributable to the public project, the condemnation proceeding, or preliminary actions of the plaintiff. Thus, it would be inappropriate to use a cost of capital based on an assumption that the City is the hypothetical buyer.

Q. If not the City specifically, why not assume the hypothetical buyer is some other municipal or public entity?

A. There are no other municipal or public entities that are likely to be purchasers of the Subject Property. Nonetheless, I will point out that the transactions utilized in the sales comparison approach (as discussed in Section VI.C of this testimony) do include three

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[21] The cost for the spare equipment was estimated by Advisian-Siemens.

[22] Shannon P. Pratt, *Valuing A Business, The Analysis and Appraisal of Closely Held Companies*, Fifth Edition, p. 43.

transactions where the purchaser was a public entity. Thus, public buyers were represented in the market for the sales comparison approach.

Q. Why not use the Commission approved rate of return for PG&E as the weighted average cost of capital?

A. While PG&E is the type of taxable corporate entity that I think is likely to purchase the Subject Property in a willing buyer/willing seller transaction, as described in the definition of Fair Market Value, my intent was to represent the likely weighted average cost of capital for a hypothetical entity – not PG&E specifically. Not only is PG&E not purchasing the Subject Property, but the rate of return the Commission allows PG&E, in particular, is based on the Commission's assessment of PG&E as an owner/operator in California. Any PG&E-specific considerations (positive or negative) should not impact the weighted average cost of capital used in the income approach as part of an appraisal under the Fair Market Value standard of value.

Q. How does development of a rate of return on rate base lead to the development of free cash flow?

A. As discussed earlier, the forecasted revenue requirement for the Subject Property is assumed to equal estimated O&M expense, taxes, depreciation, and return on rate base. Revenue less operating expenses, including book depreciation, results in annual operating income for the next ten years. Income tax is then calculated based on the operating income and a combined state and federal income tax rate. However, for the calculation of income tax, tax depreciation was substituted for book depreciation.[23] After subtracting income taxes from operating income, book depreciation is added back to result in earnings before interest, depreciation and amortization (EBIDA). Depreciation is added back because it is a non-cash expense. Finally, annual capital investments and the setting aside of funds to account for changes in working capital are subtracted from EBIDA to determine free cash flow to the lenders of capital (debt and equity). This value, summed over 10 years, plus the addition of the calculated terminal value, discounted to a present value, results in the Subject Property's value under the income approach.

[23] Tax depreciation allows for accelerated depreciation, which lowers the income tax amount in the near-term.

Q. What was the result of the income approach?

A. My estimate of the Subject Property's value based on the income approach is shown in Table 2.

Table 2
Income Approach Indicator of Value

Discounted Cash Flow Value	$ 3,427,534,000

Q. Does the result of the income approach have implications for the cost approach analysis?

A. Yes. As discussed below, the income approach results in a value for the Subject Property that is less than the RCNLD when adjusted only for physical deterioration. The income approach is also supported by the sales comparison approach. These results indicate the presence of economic obsolescence. Therefore, the RCNLD must be reduced to be no higher than the DCF value shown in Table 2 above. This accounts for the reality that, unless influenced by non-financial or strategic objectives, a willing buyer would not pay more than the income value of the property where, as here, the Subject Property is limited by rate regulation. I discuss this point further in the discussion below of depreciation for economic obsolescence.

B. COST APPROACH

Q. Please describe the cost approach.

A. I developed two indicators of value under the cost approach. The first is RCNLD, which is the current cost of a similar new property having the nearest equivalent utility as the property being appraised, less all forms of depreciation (physical deterioration, functional obsolescence, and economic obsolescence[24]). It is premised on the notion that an informed buyer would pay no more than the cost of producing a substitute property with the same function or utility as the Subject Property.[25] As described in the American

[24] Economic obsolescence is sometimes also referred to as external obsolescence, as it is in the Staff Report at 12.

[25] D.25-10-039 at 10; Staff Report at 12.

Society of Appraisers' textbook, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets,* the replacement cost approach:

> begins with the current replacement or reproduction cost new of the property being appraised. The appraiser deducts for the loss in value caused by physical deterioration, functional obsolescence, and economic obsolescence. The logic behind the cost approach comes from the principle of substitution: a prudent buyer will not pay more for a property than the cost of acquiring a substitute property of equivalent utility.[26]

The Staff Report states the cost approach "is most relevant when the property is new and built using state-of-the-art design and materials, or when the property is unique and there are no comparable properties on the market with which to make a comparison."[27] The Staff Report further states the cost approach is the "primary valuation approach in the appraisal of so-called 'special purpose properties' such as airports, schools, government buildings, shipyards, etc."[28]

Q. Explain the difference between replacement cost new and reproduction cost new.

A. Decision 25-10-039 describes the cost approach as "estimating the *replacement* cost new (RCN) of the property and deducting all forms of accrued depreciation (RCN less depreciation or RCNLD)."[29] "Replacement cost new" is the current cost of a similar new property having the nearest equivalent utility as the property being appraised. "Reproduction cost new" is the current cost of reproducing a new replica of the property being appraised using the same, or closely similar, materials.[30] The two terms are abbreviated the same (as RCN) and are often used interchangeably if changes in technology or regulation have not meaningfully changed the facilities used to provide

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[26] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Fourth Edition, p. 32.

[27] Staff Report at 12.

[28] Staff Report at 13.

[29] D.25-10-039 at 10 (citing the Staff Report at 12-13) (emphasis added).

[30] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Fourth Edition, p. 34.

service. Because the Decision defined RCN as the "replacement" cost new, I used the Replacement Cost New of the Subject Property in my appraisal, as estimated by Advisian-Siemens as the starting point in my cost approach analysis.

Q. What is the second indicator of value developed under the cost approach?

A. The second indicator of value under the Cost Approach is OCLD. OCLD is equal to the original cost of the property when it was first put into service, less the amount of accumulated depreciation based on the age, estimated service life, and estimated net salvage rate for the assets. The OCLD value is equivalent to the net plant in service or net book value of the assets for rate regulation. OCLD is a relevant indicator of value for rate regulated utility property, such as the Subject Property, because it is generally the largest component in rate base for ratemaking purposes. The OCLD value was used to estimate the rate base value of the Subject Property in the income approach analysis as described in the previous section of this testimony.

Q. Please provide an overview of the cost approach analysis in your appraisal report (Appendix II).

A. Attachment A, titled, *Cost Approach: RCNLD and OCLD Analysis*, to Appendix II, my appraisal report, shows the development of the RCNLD and OCLD indicators of value. Within Attachment A there are several tables, as listed in Table 3 below.

Table 3

Attachment A - Cost Approach: RCNLD and OCLD Analysis	
Table A-1	Summary of Cost Approach *
Table A-2	Summary of Replacement Cost New Less Depreciation *
Table A-3	Summary of Original Cost Less Depreciation
Table A-4	Accumulated Net Salvage – Transmission Assets
Table A-5	Accumulated Net Salvage – Distribution Assets
Table A-6	Transmission Inventory
Table A-7	Distribution Inventory

* Before accounting for any functional or economic obsolescence

Each of these tables details the key elements for calculation of RCNLD and OCLD.

Q. What sources of information did you rely upon to develop the RCNLD value of the Subject Property?

A. I utilized the asset list, current unit prices for different assets, and estimated installation year for the distribution and transmission plant assets, excluding real property (land,

structures and site improvements), that comprise the Subject Property as developed by Advisian-Siemens on behalf of the City and described in Exh. CCSF-002 (Bacalao) and the engineering report prepared by Advisian-Siemens titled, *San Francisco Grid Procurement Engineering Services – Asset Valuation, Volumes II and III*, Project No. 308010-00232. Advisian-Siemens provided its analysis to NewGen in detailed Excel spreadsheets, which I used to perform the RCNLD analysis. I reviewed the methodology and analyses developed by Advisian-Siemens to estimate the inventory quantities, age, condition and RCN of PG&E electrical distribution and transmission assets to be acquired and determined that I could reasonably rely on Advisian-Siemens' work product.

For the real property component of the Subject Property, I relied on data in the appraisal report prepared on behalf of the City by Runde & Partners, Inc., titled *Appraisal of PG&E Electrical Grid Real Property*, which is appended as Appendix II to Exh. CCSF-003 (Runde). I reviewed the methodology and analyses developed by Runde & Partners to estimate the FMV of real property assets to be acquired by the City. While my appraisal report and its Attachment A contain higher level descriptions and lists of the asset categories and assets comprising the Subject Property, the Advisian-Siemens and Runde & Partners reports contain the complete detailed lists of assets comprising the Subject Property, based on the information PG&E provided.

Q. Please describe the steps in your RCNLD analysis shown in Attachment A of your Appraisal Report.

A. Tables A-6 and A-7 in Attachment A of my Appraisal Report list the transmission and distribution plant inventory, respectively, for the Subject Property. Tables A-6 and A-7 are voluminous because of all the inventory items in the Subject Property. Data in columns A through K show the inventory quantities, unit costs, and percentages for owner's costs and contingency and resulting RCN value that Advisian-Siemens developed. I assigned the Federal Energy Regulatory Commission (FERC) account numbers to assets (as shown in column D). Advisian-Siemens estimated the RCN value of the inventory in 2022 dollars. Since the date of valuation in the proceeding is July 27, 2021, I trended the 2022 RCN values back to 2021 cost levels using the Handy Whitman Index of Public Utility Construction Costs, using the 2021 and 2022 values for the Pacific

Region.[31] This is shown in columns L through O in Tables A-6 and A-7. Due to this adjustment, there is a difference in the NewGen and Advisian-Siemens RCN values. The estimated installation year for the assets is shown in column P on Table A-6 for transmission plant and on Table A-7 for distribution plant. PG&E provided installation years for some, but not all, assets. Where installation year data was not available, Advisian-Siemens estimated an average installation year based on the information that was available. I reviewed Advisian-Siemens' age assumptions for the inventory, which appeared reasonable. If PG&E provides additional data for assets with missing installation years, Advisian-Siemens may review this data and adjust its analysis, as appropriate, and, if so, I would update my appraisal as well.

Q. Please explain the trended original cost calculations shown in Tables A-6 and A-7 of Attachment A to your Appraisal Report.

A. In Columns X through AB of Tables A-6 and A-7 I used the Handy Whitman Index of Public Utility Construction Costs to trend the RCN values to original cost based on the estimated installation year for each asset. The trended original cost amounts by asset in Tables A-6 and A-7 were used to calculate the adjustment for net salvage, discussed later in my testimony.

Q. What was the next step in your RCNLD analysis?

A. The next step in my analysis was to adjust the RCN value for all forms or causes of depreciation.

Q. What are the basic forms or causes of depreciation that are considered in the cost approach?

A. There are three basic forms or causes of depreciation that the appraiser should consider in developing the RCNLD value of property:

1. Physical deterioration representing the loss in value or usefulness resulting from the wear and tear of an asset in operation and exposure to various elements.

[31] The Handy Whitman Index of Public Utility Construction Costs is an industry publication that is generally accepted in the industry to estimate the change in construction costs.

2. Functional obsolescence representing the loss in value or usefulness caused by inefficiencies or inadequacies of the property itself, when compared to a more efficient or less costly replacement property that new technology might now allow.
3. Economic obsolescence representing the loss in value caused by factors external to the property.[32]

Q. In your appraisal, did you reduce the RCN value of the Subject Property for physical deterioration?

A. Yes. I reduced the RCN value for physical deterioration and made an adjustment for net salvage (cost of removal). These calculations and the resulting RCN less physical deterioration value are shown in Attachment A to my Appraisal Report (Appendix II).

Q. How did you determine the adjustment for physical deterioration for distribution and transmission plant assets?

A. I determined the accumulated depreciation due to physical deterioration by applying the current depreciation parameters (average service life and survivor curve) approved by the Commission for PG&E to determine the reserve ratio (i.e., percent of the asset cost that is depreciated) based on the age of each asset. This is shown in columns Q through V in Tables A-6 and A-7. The adjustment to the RCN value for physical deterioration (Column V) is equal to the reserve ratio (column U) multiplied by the 2021 RCN value (column O), and the resulting RCNLD value (before adjustments for net salvage and functional and economic obsolescence) is shown in column W.

Q. How did you determine the adjustment for physical deterioration for real property assets?

A. I relied on data from Mr. Runde's appraisal report to determine the amount of physical deterioration for real property assets. Attachment C of Mr. Runde's real property appraisal report specified the RCN and RCNLD (adjusted for physical deterioration) values for structural improvements and site improvements included in the Subject Property. (Land is not subject to physical deterioration so is not subject to such

[32] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Fourth Edition, pp. 48-49.

depreciation.) The RCN and RCNLD values for real property assets are included at the end of Table A-7, Distribution Inventory in my cost approach analysis.

Q. Earlier in your testimony you mentioned adjusting the RCNLD value for net salvage. What is net salvage?

A. "Net salvage" is equal to the gross salvage (i.e., the proceeds from the disposal of an asset, if any) minus the cost of removal when property is retired.[33] Net salvage value can be either positive or negative. If gross salvage exceeds cost of removal, the net salvage is positive. On the other hand, if the cost of removal is greater than the gross salvage received upon retirement of an item of property, then the resulting net salvage value is negative. Net salvage rates are expressed as a percentage of original cost and are typically negative for most electric transmission and distribution plant accounts.

Utility depreciation rates approved by the Commission include recovery of net salvage. For example, under the straight-line whole life method of depreciation, the original cost of property, adjusted for net salvage, is recovered over the average service life of the property, as shown in the formula below:

$$D = \frac{1 - NS}{ASL}$$

where: D = annual depreciation accrual
NS = estimated net salvage ratio
ASL = average service life

Net salvage directly reduces (in the case of positive net salvage) or increases (in the case of negative net salvage) the dollars of plant to be depreciated over the service life of the plant. For example, if net salvage is a positive 10%, then the annual depreciation accrual rate over the plant's service life would need to recover 90% (i.e., 100% minus 10%) of the original cost of the plant. If net salvage is equal to negative 10%, then the annual

[33] *Public Utility Depreciation Practices*, August 1996, published by the National Association of Regulatory Utility Commissioners (NARUC), Washington, D.C., pp. 317 and 320.

depreciation accrual rate over the plant's service life would need to recover 110% (i.e., 100% plus 10%) of the original cost of the plant.

Q. Describe the adjustment you made to the RCNLD value for accumulated net salvage.

A. For the RCNLD analysis, I calculated the estimated accumulated net salvage based on the trended original cost for the asset developed in Tables A-6 and A-7 times the current Commission-approved net salvage rates based on the type of asset (i.e., FERC plant account) times the reserve ratio. The reserve ratio equals the percentage of total asset value that has been depreciated based on the age of the asset and the survivor curve and average service life approved by the Commission to determine PG&E's depreciation rates. The adjustment for accumulated net salvage is developed in Tables A-4 and A-5 of Attachment A to my Appraisal Report (Appendix II).

Q. How did you determine the "original cost" of the Subject Property?

A. I determined the original cost of the assets comprising the Subject Property primarily from original cost data provided by PG&E for assets located within the City.[34]

Q. Were any adjustments made to the original cost data provided by PG&E?

A. Yes, as illustrated in Table A-3 of Attachment A of my Appraisal Report, I made a few adjustments. First, the data provided by PG&E was as of December 31, 2020 and, separately, December 31, 2021. Given the date at which the appraisal was intended to reflect value (i.e., July 27, 2021), I took a simple average of the balances on these two dates to use in my analysis.

Further, given that the specific real property identified in the Subject Property does not align with the total real property owned by PG&E inside the City (as provided by PG&E), I relied on the appraised values for this property provided by Runde & Partners in place of the data provided by PG&E for FERC Accounts 350, 352, 360, 361, and 390 (which are the FERC Accounts for land, land rights, structures and improvements).

[34] Appendix III (Excerpted Supplemental PG&E response to DR-CCSF_04-Q04, attachment PGE000082649).

Additionally, because the Martin substation is not inside the City, it was not included in the original cost data provided by PG&E for assets inside the City.[35] Thus, I added the portion of the Martin substation that is included in the Subject Property to the original cost analysis based on the trended analysis shown in Table A-6 of Attachment A of my Appraisal Report. There were also some distribution assets outside of the City that are included in the Subject Property. These were labeled as 'Martin Triangle' assets and are shown in Table A-7 of Attachment A of my Appraisal Report. These assets were also added to the original cost analysis.

Finally, there are some specific spare equipment identified by the Advisian-Siemens team, which are not in service and, therefore, would not be accounted for in PG&E's data for plant assets that are in service in the City, so I added these assets.

Q. Did you include communications equipment?

A. Yes. I included the communications equipment within the City, as provided by PG&E, in my analysis.

Q. Describe how you accounted for physical deterioration and net salvage for the OCLD analysis.

A. The same reserve ratios (listed in Column U of Tables A-6 and A-7) were used to identify the physical deterioration for the original cost as was used for the RCN. When developing the OCLD, I assumed that the applicable net salvage rate for an asset is equal to the average historical net salvage rate based on the age of the asset and PG&E's historical net salvage rates over the time period. The average net salvage rate times the reserve ratio times the original cost, identified the dollar amount of accumulated net salvage. The net salvage calculations for transmission and distribution plant are shown in Tables A-4 and A-5, respectively.

[35] Note: PG&E did separately provide original cost data for the Martin substation as a whole. I compared my trended original cost estimate for Martin ($191.8 million) to the data provided by PG&E ($165.4 million when excluding the Structures and Improvements) and found the trended original cost to be reasonable for the purposes of developing OCLD.

Q. Were there any other adjustments related to OCLD?

A. Yes, it is possible for the net book value of assets to be zero dollars in rate base if the utility plant has been fully depreciated. In fact, it is possible for the book value to be negative due to negative net salvage (i.e., it costs more to remove the utility plant than it cost to install the plant originally). However, because I assume any asset still in service has value, I ensured that none of the OCLD values for any FERC Accounts were less than 10% of the original cost for that FERC Account, even if age or net salvage would suggest the book value could be zero or negative. This assumption, all else equal, results in a higher OCLD value than the actual value of the assets for regulatory rate base purposes.

Q. Are there any other important considerations regarding your estimated OCLD?

A. Yes. My RCN and Original Cost values include all relevant utility plant for the Subject Property, regardless of how PG&E came to own the property. Property contributed or funded by customers, such as line extensions, is generally not included in rate base, but I did not attempt to identify or remove these assets from my cost approach analyses.[36] Thus, my analysis includes all assets owned by PG&E, even if they were donated to PG&E, again resulting in a higher OCLD value (all else equal) than the actual value of the assets for regulatory rate base purposes.

Q. What is the summary of results from the cost approach?

A. Table 4 below summarizes the RCN, RCNLD, Original Cost, and OCLD values developed in Attachment A of my Appraisal Report. However, it is important to note that the RCNLD value shown in Table 4 does not include any adjustment for functional or economic obsolescence.

[36] Contributed property would include certain equipment the City was required to pay for to connect its end-use customers as a wholesale customer of PG&E, but is owned by PG&E, currently referred to as Direct Assign Facilities.

Table 4

	Replacement Cost New (2021$)	RCNLD [1]	Original Cost	OCLD
Distribution	$ 7,360,791,525	$ 3,483,725,557	$ 2,779,270,854	$ 1,503,767,744
Transmission	2,080,951,972	1,152,931,744	985,991,342	720,200,066
Real Property	721,917,297	606,330,946	169,184,502	135,662,300
Communications Equip	9,764,254	976,425	4,664,438	466,444
Spares	43,161,875	43,161,875	43,161,878	43,161,878
Total	$ 10,216,586,923	$ 5,287,126,548	$ 3,982,273,014	$ 2,403,258,432

Source: Appendix II, Attachment A, Table A-1

Notes:

1) Before accounting for any functional or economic obsolescence

Q. Did you make any deductions to your estimated RCNLD value for functional obsolescence?

A. No, I did not make any deductions to the RCNLD value of the Subject Property for functional obsolescence. Functional obsolescence might be present if, for example, new technologies were available that allowed for more efficient operations. However, I am currently unaware of any functional obsolescence in the Subject Property.

Q. Did you make any deductions to your estimated RCNLD value for economic obsolescence?

A. Yes. My appraisal analysis tested for the presence of economic obsolescence by comparing the income approach value and the RCNLD value before economic obsolescence and found that economic obsolescence does exist. "To determine the existence of economic obsolescence, the business enterprise value [i.e., income value] is compared with the depreciated replacement cost of the company's productive assets. If the business enterprise value is less than the depreciated replacement cost of the company's assets, then economic obsolescence typically exists."[37] Indeed, if the property's estimated value based on the "cost approach is significantly higher than the income approach (and even the sales comparison approach), then the appraiser should verify that all the depreciation was properly quantified, especially economic

[37] Shannon P. Pratt, *Valuing a Business, The Analysis and Appraisal of Closely Held Companies*, Fifth Edition, p. 888.

obsolescence."[38] Economic obsolescence might take the form of any number of conditions external to the property[39] but, for utility property, economic obsolescence due to rate regulation is of primary concern.[40]

Q. Why is it appropriate for the depreciation of the Subject Property to consider rate regulation as a form of economic obsolescence?

A. The fact that the Commission restricts PG&E's earnings to a reasonable rate of return on the assets included in rate base is an "external factor" that must be considered. Under utility rate regulation, the utility is allowed to charge rates that are forecasted to produce revenues equal to the utility's total revenue requirement including a reasonable rate of return on rate base as determined by the Commission. The largest component of rate base is the OCLD value of the utility's plant in service. As a result, the income value of rate regulated utility property is tied to (but not necessarily equal to) the OCLD value of the utility's plant in service since this is the value of the utility's investment on which it is allowed to earn its authorized rate of return or profit. Absent unique synergies or motivations of the buyer that would not align with the Fair Market Value concept, an informed buyer would not be willing to pay an amount more than the income value of the property because the buyer would not be able to earn a reasonable return on its investment.

Q. What are some examples of "unique synergies or motivations"?

A. Unique characteristics of a particular potential buyer of the Subject Property may cause that buyer to pay more than Fair Market Value. For example, does one particular potential buyer own nearby or adjacent property that would allow the buyer to gain efficiencies that any other buyer would not have? Or, does one particular potential buyer

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[38] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Fourth Edition, p. 176.

[39] Examples of external factors include economics of the industry; availability of financing; loss of material and/or labor source; passage of new legislation; changes in ordinances; increased cost of raw materials, labor or utilities (without an offsetting increase in product price); reduced demand for the product; increased competition; inflation or high interest rates; or similar factors. (American Society of Appraisers, *Valuing Machinery and Equipment*, Fourth Edition, pp. 49).

[40] Woolery, *Valuation of Railroad and Utility Property*, page 44.

have a particular problem (e.g., the need for additional supply) that the purchase of the subject property will solve? These kinds of factors are unique to a particular potential buyer and, if relied upon in an appraisal, would represent an analysis conducted under the previously mentioned Investment Value standard of value, rather than Fair Market Value.

Q. How did you determine the adjustment for economic obsolescence?

A. The adjustment for economic obsolescence is based on the assessment of the present value of the future earnings from the Subject Property under the income approach compared to the RCNLD after deducting physical deterioration and functional obsolescence. As a rate regulated utility, the value of the Subject Property must be calibrated based on its ability to earn profits from the ownership and operation of the utility property. Therefore, the adjustment for economic obsolescence is equal to the difference between the income approach indicator of value and the RCNLD value after deducting physical deterioration and functional obsolescence.

Q. Is that why you show RCNLD for the subject property on Table 1 as $3,427,534,000?

A. Yes. For the reasons discussed, the RCNLD figure must be adjusted to reflect the negative impact on income imposed by Commission rate regulation. Because the RCNLD of the Subject Property can be no higher than its ability to earn income, the amount in excess represents economic obsolescence that must be subtracted to develop fully adjusted RCNLD. That is the basis for the $3,427,534,000 RCNLD amount shown in Table 1 of my testimony.

C. SALES COMPARISON APPROACH

Q. Please describe the sales comparison approach.

A. The sales comparison approach involves review of recent sales of similar facilities between a willing buyer and a willing seller, who are unrelated, as an indication of the market price for such properties. The Staff Report stated the sales comparison approach is the "best approach to valuing properties that are relatively homogeneous and which actively trade."[41] The more similar (or comparable) the two assets being compared are,

[41] Staff Report at 11.

the more reliable the approach may be in assessing value.[42] However, California's Eminent Domain Law recognizes that certain properties, including utility properties, may have no "relevant market" and further states that the "fair market value of property taken for which there is no relevant, comparable market is its value on the date of valuation as determined by any method of valuation that is just and equitable."[43]

The guideline sale transactions method under the sales comparison approach is primarily applicable to property that is readily substitutable and where several similar type properties have recently been sold.[44] Caution must be exercised when using the comparable sales method as an indicator of value for utility property. Normally, the appraiser will, when necessary, make adjustments to the guideline sale transactions in order to correlate the sales price to the characteristics of the subject property. However, there are many factors that can influence sales price including, among others, market area, age, condition, and other considerations that may be reflected in the sales price. Each party's motivation can affect the negotiation and the terms of the sale. Strategic objectives are the driving motivator for some sales. These objectives are often kept confidential and are not available to an appraiser for evaluation. For this reason, I generally use the sales comparison approach as a test of the reasonableness of values produced by the cost and income approaches.

Q. What sales transactions did you use in your comparable sales analysis?

A. Table 5 below shows select sales transactions involving electric utility distribution property that occurred from 2011 through 2022. All of the sales shown in Table 5 were negotiated sales and did not involve the exercise of eminent domain. There is a wide variation in the size, location, and type of plant (e.g., some sales include generation plant) for these sales, and no attempt was made to adjust the sales to correlate with the characteristics of the Subject Property. As required by D.25-10-039, my testimony

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42 *Id*.

43 Code Civ. Proc., §1263.320(b).

44 Staff Report at 11.

includes sales to both public and private entities, as applicable.[45] More information regarding the guideline sale transactions is provided in Attachment D of my Appraisal Report.

Table 5
Electric Utility Sale Transactions

No.	Year	State	Buyer	Seller	Purchase Price	Net Plant	Purchase Price/ Net Plant
1	2011	CA	California Pacific Electric Co. (Liberty Energy)	Sierra Pacific Power Co.	$ 136,418,000	$ 123,599,000	1.10
2	2011	OH	AES Corporation	DPL, Inc. (Dayton Power & Light)	$ 4,719,000,000	$ 2,965,600,000	1.59
3	2012	NH	Liberty Energy NH	Granite State Electric Co.	$ 83,000,000	$ 81,380,000	1.02
4	2015	IA, MN	Southern Minnesota Energy Cooperative	Interstate Power & Light	$ 129,000,000	$ 105,189,000	1.23
5	2017	MO, KS, OK, AR	Liberty Utilities Co. (Algonquin)	The Empire District Electric Company	$ 2,348,510,000	$ 1,910,800,000	1.23
6	2019	TX	AEP Texas, Inc.	Oncor Electric Delivery Company, LLC	$ 17,956,000	$ 17,956,000	1.00
7	2019	FL	NextEra Energy	Gulf Power Company	$ 5,657,000,000	$ 3,835,874,052	1.47
8	2020	ME	ENMAX	Emera Maine	$ 1,295,000,000	$ 1,066,820,818	1.21
9	2020	TN	Middle Tennessee Electric Membership Corporation	Murfreesboro Electric Department	$ 202,000,000	$ 152,382,078	1.33
10	2020	AK	Chugach Electric Association	Anchorage Municipal Light & Power	$ 986,000,000	$ 703,166,000	1.40
11	2020	TX	JP Morgan Chase	El Paso Electric Company	$ 4,370,650,000	$ 3,120,858,000	1.40
12	2022	RI	PPL Corporation	Narragansett Electric Company (National Grid)	$ 5,320,000,000	$ 3,734,291,000	1.42
						Mean	1.28

[45] D.25-10-039 at 33-34.

While many of the sales transactions in Table 5 vary in size compared to the Subject Property, examining the ratio of purchase price to net plant (OCLD) provides insight into the valuation of rate regulated property in willing buyer/willing seller transactions. The average (mean) ratio results in a purchase price equal to 1.28 times net plant. Most of the sales are within plus or minus one standard deviation from the mean, *i.e.*, 1.10 to 1.47 times net plant, which corresponds to a range of value under the sales comparison approach for the Subject Property of approximately $2.6 billion to $3.5 billion based on an OCLD (net plant) value of electric plant of $2,403,258,000 (rounded).

Q. What are the results of your sales comparison approach analysis?

A. The indication of value for the Subject Property from the sales comparison approach is shown in Table 6. This is based on the average (mean) ratio of 1.28 times net plant resulting from the transactions evaluated applied to the OCLD of the Subject Property.

Table 6
Sales Comparison Approach Indicator of Value

Based on Average Ratio of Purchase Price to Net Plant	$ 3,086,563,000

VII. MAPS, DRAWINGS AND RECORDS

Q. Does the Subject Property valued in your appraisal include maps, drawings and records?

A. Yes. The Subject Property identified in Section 3 of my Appraisal Report (Appendix II) includes 1) existing maps, drawings, operation and maintenance logs, and other engineering and operations records for the assets acquired, and 2) PG&E electric utility customer billing and maintenance records, by customer and rate schedule, for customers located within the City. The cost of maps and drawings of plant are capitalized costs that are included in the construction cost of a project. Maintenance and inspection records are part of ongoing operations and maintenance expense that is paid for by ratepayers and are part of the utility's business. In addition, the Commission requires utilities to keep accurate maintenance and inspection records as part of their normal business operations. Under the willing buyer/willing seller principle, which is embodied in the definition of Fair Market Value, the seller would be willing to provide maps, drawings and records that pertain to the Subject Property as part of the sale transaction. The maps, drawings and records pertaining to the Subject Property have little to no value to anyone other than

the owner of the Subject Property. In situations where the seller needs to retain maps, drawings and records for the Subject Property, it may be appropriate for the buyer to reimburse the seller for the cost to produce copies of maps, drawings and records pertaining to the Subject Property.

It is highly probable that maps, drawings and records were included in the utility sales transactions (shown in Table 5) used in the sales comparison approach, the results of which support the income approach indicator of value. Therefore, no additional value should be added to the Fair Market Value of the Subject Property for maps, drawings and records because they are already included in the indicators of value.

VIII. FAIR MARKET VALUE

Q. Please describe your determination of fair market value for the Subject Property.

A. The definition of Fair Market Value used in this appraisal refers to the highest price on the date of valuation that would be agreed to by a willing seller and a willing buyer.[46] However, this does not imply that the Fair Market Value of the Subject Property is equal to the highest indicator of value developed in the appraisal. I considered and evaluated all three generally accepted approaches to valuation (cost, income, and sales comparison approaches) in developing my opinion of the Fair Market Value of the Subject Property. Under the principle of substitution, an informed buyer would pay no more than the cost of producing a substitute property with the same utility as the Subject Property. However, an informed buyer (unencumbered by non-financial or strategic objectives) would also pay no more than the income value of the property. To do otherwise would be to purchase an asset with the expectation of earning less than the return commensurate with the perceived risk. Economic theory suggests the buyer would simply purchase some other asset, rather than overpay and earn an insufficient return. As discussed earlier, the effect of utility rate regulation is an important consideration in valuing public utility property. Under standard ratemaking procedures, rate regulated utilities are allowed the opportunity to earn a fair and reasonable rate of return on their rate base (predominately composed of the OCLD value of the non-contributed plant assets). Thus, the income

[46] Code of Civ. Proc., § 1263.320.

value for rate regulated utility property is tied to its rate base value since this is the value of the utility's investment on which it is allowed to earn its authorized rate of return.

An informed buyer would not be willing to pay a price for the Subject Property that exceeds the income value of the property (absent unique synergies or motivations of the buyer that would not align with the Fair Market Value concept). Therefore, the RCNLD value without proper adjustment for economic obsolescence is not a relevant indicator of the value for the Subject Property. I tested for the presence of economic obsolescence by evaluating the income approach value and determined that economic obsolescence does exist for the Subject Property.

The sales comparison approach has some weaknesses that bear on its reliability in the determination of Fair Market Value for utility property, but the results of the sales comparison approach generally support the income value for the Subject Property. Specifically, the income approach value is within one standard deviation from the mean ratio (of purchase price to net plant) calculated under the sales comparison approach. In other words, the ratio that would result from a sales price equal to the income approach value is approximately in line with the ratios seen in the market.

After consideration of the indicators of value developed using generally accepted approaches to valuation, given the relative strengths and weaknesses of each and the analyses and assumptions used therein, I am of the opinion that the Fair Market Value of the Subject Property as of July 27, 2021 is **$3,428,000,000** as indicated by the income approach (rounded to the nearest million dollars).

Q. Are you aware that Mr. Beicke, the co-head of power utilities and infrastructure at Jefferies LLC has provided an opinion in this proceeding that values the Subject Property?

A. Yes, I have seen the testimony of Mr. Beicke from the investment bank, Jefferies LLC. His testimony is intended to supplement my appraisal by providing a valuation of the Subject Property using the methodology commonly used by investment banks advising buyers of utility assets in the marketplace in the context of consensual mergers and acquisition transaction. While Mr. Beicke uses variations on the income and sales comparison approaches, which yield a range of results that vary from the results I developed using the cost, income and sales comparison approaches, his valuation is not

an "appraisal" as described herein. His analysis seems to be indicative of how the techniques used by investment bankers result in a valuation of the Subject Property that a hypothetical buyer interested in purchasing the Subject Property would consider. Thus, his testimony presents an additional perspective that the Commission might find useful as it deliberates on the City's petition.

IX. CONCLUSION

Q. Does this conclude your direct testimony?

A. Yes, it does.

APPENDIX I

Résumé of Grant Rabon

GRANT RABON

Partner

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EDUCATION

Master of Business Administration, University of Texas at Austin

Bachelor of Science in Chemical Engineering, Texas A&M University

PROFESSIONAL REGISTRATIONS/ CERTIFICATIONS/COMMITTEES

Accredited Senior Appraiser (ASA) designation in Public Utilities from American Society of Appraisers

KEY EXPERTISE

Utility Appraisals and Valuations

Cost of Service and Rate Design

Customer Advocacy and Engagement

Depreciation Studies

Financial Feasibility and Planning

Regulatory and Litigation Support

Since 2005, Mr. Rabon has managed electric, water, wastewater, natural gas, and solid waste utility projects designed to safeguard clients' financial integrity primarily through the performance of financial feasibility studies, depreciation studies, valuations/appraisals, or comprehensive cost of service analyses. His educational background facilitates a unique understanding of the financial implications of technical projects. Further, he is one of less than 20 individuals in the nation with an Accredited Senior Appraiser designation in Public Utilities from the American Society of Appraisers.

RELEVANT EXPERIENCE

Utility Appraisals and Valuations

Mr. Rabon has conducted valuations and fair market value appraisals to determine an indication of value for acquisitions/dispositions or to evaluate municipalization or privatization of utilities. His experience also includes service area valuations to assess compensation for decertification of areas covered by certificates of convenience and necessity.

Key Projects

Xcel Energy

Mr. Rabon performed a preliminary valuation to estimate the fair market value of the electric distribution system within the City of Boulder, Colorado, as part of the city seeking to municipalize the system owned by Xcel Energy.

Louisiana Land and Water Company

In support of the acquisition of some systems owned by Louisiana Land and Water Company, an investor-owned utility, by the Greater Ouachita Water Company (GOWC), Mr. Rabon conducted a fair market value appraisal of Louisiana Land and Water Company, including 13 water and 27 wastewater systems. Subsequently, Mr. Rabon led a comprehensive cost of service analysis for the existing water and wastewater utilities of GOWC and developed rates to recover all costs, including the acquisition and necessary capital improvements. He filed the required schedules with the Louisiana Public Service Commission to support the acquisition and rate request. (LPSC Docket No. U-32803).

Pennichuck Corporation

Mr. Rabon performed an income approach analysis to compare the rate revenue necessary to support three regulated, investor-owned water systems under public and private ownership scenarios. This analysis supported the City of Nashua's effort to acquire systems owned by Pennichuck Corporation via eminent domain. Ultimately, the city bought Pennichuck Corporation in its entirety in 2012.

San Diego Gas & Electric

Mr. Rabon performed a preliminary valuation to estimate the fair market value of the electric and natural gas distribution system within the City of San Diego, California, as part of the city's investigation to municipalize the system owned by San Diego Gas and Electric.

GRANT RABON
Partner

Brownsville Navigation District and El Jardin Water Supply Corporation

Mr. Rabon performed an income approach analysis to determine an indication of value for the El Jardin Water Supply Corporation water system and a fair market value appraisal of the Brownsville Navigation District water and wastewater systems on behalf of the Brownsville Public Utilities Board.

Hermleigh Water Works

Mr. Rabon performed a fair market value appraisal of Hermleigh Water Works on behalf of Scurry County, Texas, for the county's decision-making process regarding the possible utility sale. The county came into possession of the water utility due to the dissolution of the City of Hermleigh by vote of the residents and then the County Commissioners Court in June 1955. After appraisal, the county solicited offers to purchase the water utility and accepted a bid from an investor-owned utility to purchase the utility in November 2021.

Woodcreek

Mr. Rabon appraised the water system serving the City of Woodcreek, Texas, to assist the city in acquiring the system or reaching a settlement with the investor-owned utility serving the city. The parties ultimately reached an agreement that addressed the rates charged within the city, active litigation, and other ancillary issues between the parties.

Esperanza Water Service Company

Mr. Rabon performed a fair market value appraisal of Esperanza Water Service Company, operating in and around McNary, Texas, on behalf of El Paso Water Utilities.

Aqua Indiana

Mr. Rabon performed a fair market value appraisal of Aqua Indiana's water systems in and around the City of Fort Wayne, Indiana, on behalf of the city.

Bi-County Water Supply Corporation

Mr. Rabon performed a fair market value appraisal of Bi-County Water Supply Corporation near the City of Pittsburg, Texas. The appraisal was performed for a bank to support financing requested by Bi-County Water Supply Corporation.

Greater Ouachita Water Company

Mr. Rabon performed a fair market value appraisal of a portion of Greater Ouachita Water Company's water utility in and around the Town of Sterlington, Louisiana. The Town of Sterlington was interested in taking over the water utility serving in and around its corporate limits and was seeking a loan from the United States Department of Agriculture to acquire the utility.

EnLink Midstream

Mr. Rabon performed a fair market value appraisal of a 12-inch steel natural gas pipeline owned and operated by EnLink Midstream on behalf of the City of Alexandria, Louisiana, which was considering the acquisition of the pipeline.

Kenwood Water System

Mr. Rabon performed a fair market value appraisal of the Kenwood Water System, which is owned and operated by Aqua Texas in Houston, Texas. The appraisal was conducted on behalf of Aqua Texas after the Harris County Community Services Department (Department) notified Aqua Texas of the Department's intent to acquire the Kenwood Water System through the buyout process in the Harris County Relocation and Buyout Program. The program is mandatory, and the Department possesses eminent domain authority to acquire property for flood mitigation purposes.

GRANT RABON
Partner

Clint and McCombs Municipal Landfills

Mr. Rabon has twice performed landfill valuations on the City of El Paso's Clint and McCombs Municipal Landfills, which provided an indication of value to the city and assisted the city in evaluating available options for solid waste disposal.

Moccasin Mike Landfill

Mr. Rabon performed a valuation of the Moccasin Mike Landfill, which is owned and operated by the City of Superior, Wisconsin. The analysis was to aid the city in decisions regarding disposal options and evaluate potential offers to acquire the landfill.

City of Janesville Landfill

Mr. Rabon performed a valuation of the City of Janesville Landfill, which is owned and operated by the City of Janesville, Wisconsin. The analysis was to aid the city in decisions regarding disposal options and evaluate potential offers to acquire the landfill.

Florida Public Service Commission

Mr. Rabon, or his NewGen team members, have been selected by the Florida Public Service Commission to conduct a fair market value appraisal of water and/or wastewater systems pursuant to pursuant to §367.0811 of the Florida Statutes. Mr. Rabon has been involved in the appraisal of the following utilities under this process.

- Forest Utilities, Inc.

Public Utility Commission of Texas

Mr. Rabon, or his NewGen team members, have been selected by the Public Utility Commission of Texas to conduct a fair market value appraisal of water and/or wastewater systems pursuant to §13.305 of the Texas Water Code. Mr. Rabon has been involved in the appraisal of the following utilities under this process. One or more of these appraisals involved valuing intangible assets associated with excess water rights.

- Carroll Water Company
- City of Ferris, Texas
- Clear Water Estates
- Crystal Springs Water Company, Inc.
- Commons Water Supply
- Douglas Utility Company
- Integra Water Texas, LLC
- Lake Limestone Coves Water System
- Leon Springs Utility Company
- NextEra Water Texas, LLC
- North Orange Water and Sewer
- Northside Subdivision Water Plant and Distribution Corp.
- Patterson Water Supply
- Utilities Investment Company and UIC 13

CCN Compensation

Conducted analyses pursuant to §13.254 and §13.255 of the Texas Water Code to determine compensation for decertification of areas covered by Certificates of Convenience and Necessity (CCN) held by the following utilities:

- City of Georgetown
- Guadalupe-Blanco River Authority
- Jarrell-Schwertner Water Supply Corporation
- Johnson County Special Utility District
- Liberty City Water Supply Corporation
- Mountain Peak Special Utility District
- Rice Water Supply & Sewer Supply Corporation
- Rockett Special Utility District
- Sharyland Water Supply Corporation

GRANT RABON
Partner

Cost of Service and Rate Design

Mr. Rabon has conducted numerous comprehensive cost of service and rate design studies. Rates designed as a result of these engagements equitably recover the cost of service and align with the utilities' goals, including special consideration for affordability and best practice rate structures. Stakeholder outreach and benchmarking analyses were typical tasks within these projects.

Key Projects

Austin Energy – Cost of Service and Testimony

Mr. Rabon conducted a comprehensive, unbundled cost of service analysis for the electric utility and designed equitable rates to achieve the City of Austin's goals. Efforts included improving fixed cost recovery while incentivizing conservation through a five-tier rate structure and supporting distributed generation, such as rooftop solar. Mr. Rabon filed direct testimony in 2012 on behalf of the City of Austin d/b/a Austin Energy at the Public Utility Commission of Texas in defense of the electric rates adopted by Austin City Council (PUC Docket No. 40627). In 2015, he conducted various analyses on issues of critical importance to Austin Energy, such as a financial reserves study and a review of small commercial rates. He also assisted Austin Energy staff in updating the cost of service and rate design, including extensive public involvement and stakeholder engagement intended to mimic a rate case at the Public Utility Commission of Texas. Mr. Rabon conducted another update to the comprehensive, unbundled cost of service analysis in 2022 that, among other changes, proposed redesigned residential rates and an update to the value of solar tariff. The 2022 update utilized a similar public involvement and stakeholder engagement process to mimic a rate case at the Public Utility Commission of Texas. City Council approved base rate increases in December 2022.

Lower Colorado River Authority – Wholesale Water Benchmarking and Rate Analysis

Mr. Rabon performed a benchmarking analysis to identify best practices among wholesale water entities nationwide, emphasizing innovative rate structures and water conservation efforts. He also conducted a long-term rate analysis to incorporate projected capital projects to expand the water supply over a 90-year horizon under various rate structures.

College Station – Electric Transmission Filing

Mr. Rabon conducted a comprehensive cost of service analysis for the transmission function and regulated rate filing with the Public Utility Commission of Texas, including developing all schedules, work papers, and testimony (PUC Docket No. 52728).

Greenville Electric Utility System (GEUS) – Electric Transmission Filing

Mr. Rabon performed a quality assurance review of a comprehensive cost of service analysis for the transmission function and regulated rate filing with the Public Utility Commission of Texas.

Texas Municipal Power Agency (TMPA) – Electric Transmission Filing

Mr. Rabon developed an interim regulated rate filing for the transmission function with the Public Utility Commission of Texas and filed direct testimony on behalf of TMPA (PUC Docket No. 51439).

Georgetown Electric Utility – Rate Projects

Mr. Rabon conducted a series of rate projects for the City of Georgetown, Texas, to improve cost recovery and equity. These efforts included redesigning the distributed generation rate tariff, evaluating a large contract customer load, and designing a new rate tariff for commercial "fast charging" plug-in electric vehicle charging stations.

GRANT RABON
Partner

Other Cost of Service and Rate Design Studies

Mr. Rabon conducted one or more comprehensive cost of service and rate design studies for the following entities:

- Abby Plantation Estates Sanitary Sewer Corporation, LA
- Aqua Water Supply Corp., TX
- Brownsville Public Utilities Board, TX
- Brushy Creek Municipal Utility District, TX
- City of Athens, TX
- City of Borger, TX
- City of Bryan, TX
- City of Del Rio, TX
- City of Greenville, TX
- City of Hobbs, NM
- City of Las Cruces, NM
- City of Lockhart, TX
- City of Longview, TX
- City of Mount Vernon, TX
- City of New Braunfels, TX
- City of Nogales, AZ
- City of Olathe, KS
- City of Peoria, AZ
- City of Pflugerville, TX
- City of Sealy, TX
- City of Sioux Falls, SD
- City of Stillwater, OK
- City of Sugar Land, TX
- City of Tempe, AZ
- City of Temple, TX
- City of Tucson, AZ
- City of Vernon, CA
- City of Weatherford, TX
- City of West Lake Hills, TX
- Gonzales County Water Supply Corporation, TX
- Greater Ouachita Water Company, LA
- Levi Water Supply Corporation, TX
- Kerrville Public Utility Board, TX
- L & R Utilities, Inc., LA
- Liberty City Water Supply Corporation, TX
- Manville Water Supply Corporation, TX
- National Water Infrastructure, LLC, LA
- North Slope Borough, AK
- Peoples of Bastrop, LLC, LA
- Pima County, AZ
- Rockett Special Utility District, TX
- St. Tammany Parish, LA
- Snohomish County, WA
- Town of Estes Park, CO
- Walker County Special Utility District, TX
- Wellborn Special Utility District, TX
- York County, SC

Financial Feasibility

Mr. Rabon has evaluated the financial feasibility of various projects through business case analyses and the development of financial models. One project included evaluating a proposed 20 million-gallon-per-day brackish groundwater desalination facility for the San Antonio Water System based on the relative capital and operational costs and total lifecycle costs under various project delivery options, including traditional DBB, DB, DBO, and a customized DBOOT. Another project included financial feasibility modeling to evaluate a proposed water source development for a municipal client.

Depreciation

Mr. Rabon has conducted comprehensive depreciation studies to establish appropriate utility depreciation rates, including benchmarking depreciation rates among peer utilities. Engagements include projects for the following entities:

- Austin Energy
- County of Kauai Department of Water
- CPS Energy

- City of Fort Worth Water Department
- Tri-State Generation and Transmission, Inc.

Regulatory and Litigation Support

In addition to the regulatory work associated with some of the projects previously mentioned, Mr. Rabon has also provided litigation support to his clients. This support includes a project calculating damages owed to three electric cooperatives and one municipally owned utility as part of a wholesale rate dispute with the Lower Colorado River Authority in Travis and Kerr County, Texas District Courts. Efforts incorporated recreating billing determinants and the development of a market access rate. (Cause No. D-1-GN-12-002156 and Cause No. 12-1001-B). In another project, Mr. Rabon calculated damages owed to a municipality in a contract dispute with its ERCOT Qualified Scheduling Entity. Finally, Mr. Rabon was a designated expert witness in a Louisiana utility condemnation case.

Customer Advocacy and Engagement

Mr. Rabon served as the residential rate advocate for Austin Water's water, reclaimed water, and wastewater cost of service and rate design study. He represented the interests of the residential customer class in the process, much like the Texas Office of Public Utility Counsel often does for regulated rate cases. To explain the process and solicit feedback on essential policy issues from residents, Mr. Rabon participated in a stakeholder engagement process and presented at a series of meetings with residential customer groups around the City. He also reviewed and critiqued Austin Water's prior comprehensive rate review, completed in 2009, and the validity of the methodologies employed therein. Finally, given that the Public Utility Commission of Texas could review any rates proposed by Austin Water, Mr. Rabon provided invaluable input on acceptable practices based on extensive prior work in this venue. He provided written comments on proposed changes to Austin Water's financial policies in a separate engagement.

PRESENTATIONS

Mr. Rabon has given various industry presentations focused on utility finances and rates.

Texas Rural Water Association Conferences

- *Impact Fees Done Right: Funding Capacity Upgrades with Transparency & Fairness* (2026)
- *Financial Strategies for Utilities* (2025)
- *Financial Management & Fiduciary Responsibilities* (2022 and 2023)
- *CCN Decertification Compensation – What's Fair?* (2021)
- *Financial Management and Fiduciary Responsibilities* (2019)
- *How to Structure Rates to Ensure a Successful Future for Your System* (2019)
- *Rates that Support Current and Future Needs* (2018)
- *Financial Planning and Tools* (2016)
- *Water Rates 101* (2015)
- *CCN Valuations: Financial Considerations Related to Decertification and Expedited Release* (2014)
- *Keeping Your System Financially Fit; Learn How to Set Good Water Rates* (2012)

GRANT RABON
Partner

American Water Works Association and Water Environmental Federation's Utility Management Conference

- *Austin Water Affordability Assessment (2020)*
- *Regionalization Efforts: A Louisiana Case Study (2013)*

National Rural Water Association Conferences

- *Small Water System Financing 101 (2019)*
- *Rate Planning for a Sustainable System (2018)*

Texas Public Power Association Conferences

- *Effectively Managing Significant Rate Changes (2019)*
- *Is Change Coming?: Transmission Rate Filings at the Public Utility Commission (2018)*
- *Adapting to Distributed Generation (2017)*

American Public Power Association - Business & Financial Conference

Designing New Rates for Residential Customers (2025)

Record of Testimony: **Grant Rabon, ASA**

UTILITY	PROCEEDING	SUBJECT	BEFORE	CLIENT	YEAR
1. L & R Utilities, Inc.	Docket No. U-37775	Water and Wastewater Cost of Service Rate Filing	Louisiana Public Service Commission	L & R Utilities, Inc.	2025
2. Abby Plantation Estates Sanitary Sewer Corporation	Docket No. U-36320	Wastewater Cost of Service Rate Filing	Louisiana Public Service Commission	Abby Plantation Estates Sanitary Sewer Corporation	2024
3. Tri-State Generation and Transmission Association, Inc.	Docket No. ER24-2171-000*	Depreciation Rates	Federal Energy Regulatory Commission	Tri-State Generation and Transmission Association, Inc.	2024
4. Pacific Gas and Electric	Docket No. P.21-07-012	Fair Market Value Appraisal	California Public Utilities Commission	City and County of San Francisco	2023
5. Peoples of Bastrop	Docket No. U-36836	Revenue Requirement, Cost of Service, Proposed Water Rates	Louisiana Public Service Commission	Peoples of Bastrop	2023
6. Greater Ouachita Water Company	Docket No. U-36716	Revenue Requirement, Cost of Service, Proposed Water and Sewer Rates	Louisiana Public Service Commission	Greater Ouachita Water Company	2023
7. National Water Infrastructure	Docket No. U-36383	Wastewater Cost of Service Rate Filing	Louisiana Public Service Commission	National Water Infrastructure	2022
8. City of College Station	Docket No. 52728	Electric Transmission Cost of Service Rate Filing (Full)	Public Utility Commission of Texas	City of College Station	2021
9. Windermere Oaks Water Supply Corporation	Docket No. 50788	Water Revenue Requirement and Cost Recovery Issues	Public Utility Commission of Texas	Windermere Oaks Water Supply Corporation	2021
10. Texas Municipal Power Agency	Docket No. 51439	Interim Electric Transmission Project Additions, Revenue Requirement, and Rate	Public Utility Commission of Texas	Texas Municipal Power Agency	2020
11. Greater Ouachita Water Company	Docket No. U-34865	Revenue Requirement, Proposed Water and Sewer Rates	Louisiana Public Service Commission	Greater Ouachita Water Company	2018
12. Austin Energy	Docket No. 40627	Electric Cost of Service Modeling, Adopted Rate Impacts, Proof of Revenues	Public Utility Commission of Texas	City of Austin dba Austin Energy	2012

* Originally filed in 2023 as Docket No. ER23-2171-000

APPENDIX II

G. Rabon, NewGen Strategies & Solutions, Appraisal of PG&E Electrical Distribution and Transmission Facilities in San Francisco (2026)

NewGen Strategies & Solutions

www.newgenstrategies.net

APPRAISAL OF PG&E ELECTRICAL DISTRIBUTION AND TRANSMISSION FACILITIES IN SAN FRANCISCO

APRIL 2026

Prepared for:
City and County of San Francisco, California

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Section 1
PREMISE OF THE APPRAISAL

The City and County of San Francisco, California ("City" or "Client"), under the direction of the Office of the City Attorney, retained NewGen Strategies and Solutions, LLC ("NewGen") to perform an independent appraisal to determine the Fair Market Value ("FMV") of the land, property and rights comprising the electrical distribution and transmission facilities and related real property assets, presently owned and operated by Pacific Gas & Electric Company ("PG&E"), that are needed to provide electricity service to customers in San Francisco, hereinafter referred to as the Subject Property. This appraisal report does not consider potential severance costs.

In undertaking the study and analyses required to provide an opinion with respect to the FMV of the Subject Property, NewGen relied on generally accepted valuation methods and procedures. This appraisal report was prepared in conformance with the 2024 Edition of the Uniform Standards of Professional Appraisal Practice (USPAP) as promulgated by the Appraisal Standards Board of the Appraisal Foundation.

This report is an Appraisal Report as that term is defined in USPAP, Standards Rule 8-2.

Purpose and Intended Use

The purpose of this appraisal is to estimate the FMV of the Subject Property as of July 27, 2021, in accordance with the applicable laws, statutes, and USPAP. The client and intended users of this appraisal are the City and its authorized representatives for the purpose of establishing the acquisition price for the Subject Property in the California Public Utilities Commission ("Commission") proceeding P.21-07-012, *Petition of the City and County of San Francisco for a Valuation of Certain Pacific Gas & Electric Company Property Pursuant to Public Utilities Code Sections 1401-1421*.

Date of Valuation

The FMV of the Subject Property was estimated as of July 27, 2021, which was the date the City filed its Petition for Valuation.

Date of the Appraisal Report

The date of the appraisal report is April 20, 2026.

Definition of Value

NewGen estimated the fair market value of the Subject Property in continued use as utility property providing and/or supporting electric distribution service. California Code of Civil Procedure Section 1263.320 defines Fair Market Value as follows:

> a) The fair market value of the property taken is the highest price on the date of valuation that would be agreed to by a seller, being willing to sell but under no particular or urgent necessity for so doing, nor obliged to sell, and a buyer, being ready, willing, and able to buy but under no particular necessity for so doing, each dealing

with the other with full knowledge of all the uses and purposes for which the property is reasonably adaptable and available.

b) The fair market value of property taken for which there is no relevant, comparable market is its value on the date of valuation as determined by any method of valuation that is just and equitable.

Section 1263.330 provides that the fair market value shall not include an increase or decrease in value attributable to the project for which the property is to be acquired.

Property Interests Appraised

The property interest being valued is the 100% ownership interest in the land, property and rights, including the facilities and real property interests, currently owed by PG&E and associated with the Subject Property with no restrictions, indebtedness, or other encumbrances. A description of the Subject Property is provided in Section 3 of this report.

Highest and Best Use

Highest and best use is defined as "the most probable and legal use of a property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value."[1] In our opinion, the highest and best use of the Subject Property is its current use, to provide electric service to end-users located within the municipal boundaries of the City.

Scope of Services

At the request of the City, NewGen performed an independent appraisal to determine the FMV of the Subject Property as of July 27, 2021. In undertaking the studies and analyses required to provide an opinion with respect to the FMV of the Subject Property, the NewGen appraiser certifying this appraisal report has relied on generally accepted valuation methods and procedures in accordance with USPAP. In performing the appraisal, the NewGen appraiser considered all three generally accepted approaches to valuation (i.e., cost, income, and sales comparison) and their degree of applicability in estimating the value of the Subject Property. The results of NewGen's analyses and indicators of value developed are described in Section 4 of this appraisal report.

The NewGen appraiser performed a site visit accompanied by engineers on behalf of the City to observe PG&E transmission substations in the City (Embarcadero, Potrero, Hunters Point, Larkin, Mission, Bayshore) as well as the Martin Substation. PG&E personnel accompanied us on these site visits to facilitate access to facilities.

Information Relied Upon

In performing the appraisal, NewGen relied upon the confidential information contained in the materials listed below.

[1] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Second Edition, page 570.

- Engineering report titled, *San Francisco Grid Procurement Engineering Services – Asset Valuation, Volumes II and III*, *Project No. 308010-00232*, and supporting Excel spreadsheet files prepared by Advisian, Worley Group with Siemens Industry, Inc. (collectively referred to as "Advisian-Siemens"). (Advisian-Siemens was retained by the City under a separate contract to provide electrical engineering services to the City in connection with the proposed acquisition of the Subject Property).
- Real property appraisal report prepared by Timothy P. Runde, MAI, LEED AP, of Runde & Partners, Inc., of electrical transmission and distribution real property assets located within the City and County of San Francisco and portions of the Martin Substation as requested by the City. (Runde & Partners was retained by the City under a separate contract to provide real property appraisal services in connection with the proposed acquisition of the Subject Property).
- PG&E responses to data requests submitted by the City in Commission proceeding P.21-07-012.

In addition, NewGen relied upon the following publicly available data to develop the appraisal:

- PG&E FERC Form 1 Annual Reports for the years ending December 31, 2013 through 2022
- PG&E 2020 General Rate Case (GRC) filing, A.18-12-009, before the CPUC and CPUC Decision 20-12-005 (12/3/20)
- California Energy Commission (CEC), 2022 Integrated Energy Policy Report (2022 IEPR), California Energy Demand 2022-2035 Forecast - Planning Forecast, Form 1.5b - 1.5d, Net Electricity Peak Demand by Agency and Balancing Authority (MW), PG&E Service Area - Greater Bay Area
- Blue Chip Economic Indicators, Vol. 46, No. 3, March 12, 2021, page 14, Long-Range Consensus GDP Chained Price Index (2023-2027 and 2028-2032)
- Whitman, Requardt and Associates, *Handy-Whitman Index of Public Utility Construction Costs*
- Value Line Investment Reports
- SNL Financial Database, S&P Global Market Intelligence, LLC
- Business Valuation Resources, *Cost of Capital Professional*
- Kroll, *Cost of Capital Navigator*
- San Francisco Public Utility Commission, Annual Comprehensive Financial Report for Fiscal Years Ended June 30, 2022 and 2021
- U.S. Census Bureau Data for City and County of San Francisco and State of California

NewGen Strategies and Solutions, LLC

NewGen is a management and economic consulting firm specializing in serving the utility industry and market. We provide financial, valuation, cost of service and rate design, depreciation, strategy, expert witness, stakeholder, and sustainability consulting services to energy, water, wastewater, and solid waste clients across the country.

NewGen has prepared appraisal reports for a wide range of sizes and types of utility property. NewGen has multiple Accredited Senior Appraisers (ASAs) in the Public Utility discipline as certified by the American Society of Appraisers on our staff. The appraisers and other personnel working on this assignment have the knowledge and experience to complete the assignment competently. A list of individuals contributing

to this appraisal report and a summary of their qualifications and experience are provided in Attachment E to this report.

Section 2
ASSUMPTIONS AND LIMITING CONDITIONS

In the preparation of this report, NewGen made certain assumptions and used certain considerations with respect to conditions which may exist or events which may occur in the future. While we believe these considerations and assumptions to be reasonable based upon conditions known to us as of the date of this report, they are and were dependent upon future events, and actual conditions may and have differed from those assumed.

While we believe the use of such information and assumptions to be reasonable for the purposes of this report, we offer no other assurances with respect thereto, and some assumptions may vary significantly due to unanticipated events and circumstances. To the extent actual contemporary or future conditions differ from those assumed herein or from the assumptions provided by others, the actual results may vary from those estimated.

The conclusion and opinions found in this report are made expressly subject to the following conditions and stipulations:

1. **Hypothetical Condition**[2]: The Subject Property is located in an area with known high seismic activity. In 2007, the U.S. Geological Survey (USGS), California Geological Survey (CGS), and the Southern California Earthquake Center (SCEC) estimated that there is a 63% probability of a magnitude 6.7 or greater earthquake in the San Francisco Bay Area by 2037.[3] However, this appraisal was performed without regard to earthquake risks.
2. With the exception of the land parcel, the Subject Property does not include PG&E's proposed Egbert transmission substation which did not exist on the date of valuation. NewGen assumes that the Egbert Substation, if constructed, would be acquired by the City under a separate agreement with PG&E.
3. No responsibility is assumed by NewGen for matters that are legal in nature, nor do we render any opinion as to the title, land, and/or land rights which are assumed to be good and marketable.
4. Except as otherwise stated in this report, no opinion is intended to be expressed for matters that would require specialized investigation or knowledge beyond that normally used by an appraiser engaged in valuing the type of assets described in this report.
5. NewGen made no determination as to the validity, enforceability, or interpretation of any law, contract, rule, or regulation applicable to the Subject Property or its operation. However, for the purposes of this report, NewGen assumed that all such laws, contracts, rules, and regulations will be fully enforceable in accordance with their terms as NewGen understands them and that the operators of the Subject Property will operate the Subject Property in accordance with all applicable laws, contracts, rules, and regulations.
6. NewGen assumes that the Subject Property is in compliance with all federal, state, and local environmental laws and regulations at the date of valuation. No soil analyses or geological studies were ordered or made in conjunction with this report, nor were any investigations of oil, gas, coal, or other subsurface mineral and use rights or conditions.

[2] Hypothetical conditions, in the context of this analysis, are conditions that are contrary to what is known by the appraiser to exist on the effective date of the assignment results but that are used for the purposes of the analysis. (USPAP Definitions.)
[3] USGS, Earthquake Hazards of The Bay Area Today, https://earthquake.usgs.gov/earthquakes/events/1868calif/virtualtour/modern.php

7. NewGen has not conducted any investigations, nor have we reviewed studies performed by others regarding environmental issues. To the extent not specifically mentioned in this report, the existence of any environmental issues may have a detrimental impact on value.
8. Substances contained in building structures such as asbestos, chemicals, toxins, wastes, or other potentially hazardous materials could, if present, adversely affect the value of the Subject Property. Unless otherwise stated in this report, the appraiser did not consider the existence of hazardous substances, which may or may not be present at the Subject Property, in the development of the conclusion regarding FMV. The stated value estimates are predicated on the assumption that the Subject Property contains no material that would cause such a loss in value and, as such, are likely to represent the highest reasonable value of the Subject Property.
9. NewGen assumed that the Subject Property conforms to all applicable zoning and use regulations and restrictions.
10. All existing liens and encumbrances have been disregarded and the value of the Subject Property was appraised as though free and clear and under responsible ownership.
11. NewGen assumed there are no other hidden or unapparent conditions that would make the Subject Property more or less valuable.
12. NewGen assumed the Subject Property has been, and will continue to be, operated in a reasonable and prudent manner consistent with industry practice.
13. On December 5-8, 2022, Mr. Grant Rabon, appraiser for NewGen, performed a site visit accompanied by engineers on behalf of the City to observe PG&E transmission substations in the City (Embarcadero, Potrero, Hunters Point, Larkin, Mission, Bayshore) as well as the Martin Substation. Based on his observations, information in the Advisian-Siemens engineering report regarding the inventory, age, and condition of PG&E electrical facilities in the City, and discussions with personnel from Siemens PTI, who performed additional site inspections of PG&E medium voltage substations and underground distribution line facilities in the City, NewGen assumed that the electric distribution and transmission plant and equipment included in the Subject Property is in average condition for plant of comparable type, age, and location.
14. NewGen appraisers did not accompany Mr. Tim Runde, MAI, LEED AP, on site inspections he performed of the real property assets included in the Subject Property. Based on discussions with Mr. Runde and our review of Mr. Runde's real property appraisal report, NewGen assumes that the real property assets included in the Subject Property are in average condition for assets of comparable type, age and location.
15. Certain data and assumptions have been provided by third parties, including, but not limited to, historical financial data, inventory data, estimated age data, and replacement cost values for the Subject Property. NewGen caveats that it may need to adjust the results in this report if required by changes to these third-party data and assumptions.
16. NewGen relied on work performed by Advisian-Siemens to develop the inventory quantities, estimated age data, and planning-level construction cost estimates as of the date of valuation for the Subject Property used in the appraisal. NewGen reviewed the methodology and analyses developed by Advisian-Siemens to estimate the inventory quantities, age, condition, and Replacement Cost New of PG&E electrical distribution and transmission assets in the City and determined that NewGen could reasonably rely on Advisian-Siemens's work product.

17. NewGen relied on the real property appraisal performed for the City by Runde & Partners, Inc. for the fair market value as of July 27, 2021, of PG&E electrical transmission and distribution real property the City proposes to acquire as part of the Subject Property. NewGen reviewed the methodology and analyses developed by Runde & Partners to estimate the FMV of real property assets to be acquired by the City and determined that NewGen could reasonably rely on Runde & Partners' appraisal report.
18. For the purpose of developing an opinion of the value of the Subject Property, NewGen assumed income taxes based on a Federal corporate income tax rate of 21% and California state corporate tax rate of 8.84%, which were the corporate tax rates at the date of valuation.
19. Under the income approach, the discount rate used to calculate the net present value of the projected cash flow stream is equal to the weighted average cost of capital for a typical purchaser of the Subject Property, rather than any actual financing associated with the Subject Property. For the purposes of this appraisal report, NewGen assumed the typical purchaser of the Subject Property would be a taxable entity, with a capital structure similar to that of an investor-owned utility (IOU). NewGen assumed that the capital structure of a typical purchaser will remain constant throughout the study period and will be made up of 55.4% debt and 44.6% equity (as shown in Attachment C, Tables D and G).
20. The cost of debt used to develop the discount rate as of July 27, 2021, was assumed to be 4.26% based on the Blue Chip Consensus Forecast (Blue Chip Economic Indicators, Quarterly Supplement, Vol. 37, No. 2, June 11, 2021) for the Annual Average Corporate Bond Rate, Baa, for 2022 (as shown in Attachment C, Tables D and G).
21. It was assumed that a typical purchaser of the Subject Property would seek a return on capital similar to that of an IOU. For the analysis in this appraisal report, NewGen assumed the return on equity to be used in the calculation of the discount factors to be in the range of 9.1% to 10.9% for the Subject Property (as shown in Attachment C, Tables C and F, respectively). The lower bound of the return on equity range was developed using Center for Research in Security Prices (CRSP) risk and size premia. The upper bound of the return on equity range was developed using Kroll risk and size premia.
22. The discount rate used in the appraisal report to determine the net present value of cash flow streams is based on an average of the Weighted Average Cost of Capital (WACC) developed using the Capital Asset Pricing Model (CAPM) using CRSP and Kroll risk premia approaches. This was 6.2% for the Subject Property. Both the Kroll and CRSP risk and size premia are generally accepted approaches to estimating the cost of equity for IOUs that are not actively traded on a public exchange. NewGen did not find evidence to indicate that either of the cost of equity approaches should be rejected. The calculation of the discount rate is shown in Attachment C.
23. NewGen recognizes that the COVID-19 pandemic present in 2021 resulted in unprecedented economic impacts and associated risks for companies that operate in certain sectors. These risks had an impact on the general interest rate environment. NewGen assumed that electric utilities were not as susceptible to economic risk as some other industries, such as airlines or restaurants. For example, even if uncollectible accounts became elevated, there were mechanisms available to regulated IOUs to mitigate the financial harm of such circumstances. Thus, NewGen assumed it was reasonable not to make an additional adjustment to the risk premia for COVID-19 in the WACC calculation.
24. NewGen assumed a reasonable long-term inflation rate for the Subject Property to be 2.1% per year based on the long-range consensus forecasts of the Chained Gross Domestic Product as published in the March 12, 2021, issue of the Blue Chip Economic Indicators (Volume 46, No. 3, page 14, Long-Range Consensus GDP Chained Price Index (2023-2027 and 2028-2032).

25. Operating expenses (excluding depreciation) for the Subject Property were assumed to equal 36.38% of revenues, developed based on data in PG&E 2020 CPUC General Rate Case, Application 18-12-009, Decision 20-12-005 (12/3/20), Appendix B, Decision Tables - Summary of Earnings (Test Year 2020), Table 1-A, Adopted Results of Operations at Proposed Rates. In response to Data Request CCSF_004, Questions 08 and 10, PG&E stated that it does not track actual annual electric transmission and distribution operating and maintenance (O&M) expenses and customer accounting, customer service, sales expense, and administrative and general expenses by Division (e.g., PG&E's San Francisco Division). Instead, PG&E stated these expenses are generally tracked over the entire PG&E service area.

26. Taxes other than income taxes for the Subject Property were assumed to equal 5.08% of revenues, developed based on data in PG&E 2020 CPUC General Rate Case, Application 18-12-009, Decision 20-12-005 (12/3/20), Appendix B, Decision Tables - Summary of Earnings (Test Year 2020), Table 1-A, Adopted Results of Operations at Proposed Rates.

27. For the purpose of performing the discounted cash flow analysis under the income approach, NewGen assumed that annual load growth for the Subject Property would be equal to 0.70% based on the California Energy Commission (CEC), 2022 Integrated Energy Policy Report (2022 IEPR), California Energy Demand 2022-2035 Forecast - Planning Forecast, Form 1.5b - 1.5d, Net Electricity Peak Demand by Agency and Balancing Authority (MW), PG&E Service Area - Greater Bay Area.

28. NewGen assumed that a reasonable, sustainable rate for transmission and distribution plant additions in the City over the next ten years is equal to the Replacement Cost New value of the transmission and distribution assets multiplied by the estimated average retirement rate for the next fifteen years (2021-2035), based on the average age of the assets as well as the CPUC approved average service life and survivor curve for the asset type, for the first year of the forecast and then inflated annually based on the compound annual result of capital inflation and 0.70% per year for projected electric load growth. Capital inflation for the distribution assets was assumed to be 3.6% per year based on Handy Whitman Index of Public Utility Construction Costs, Pacific Region (E-6), 10-year average increase in costs (2010-2020) for all distribution plant. Capital inflation for the transmission assets was assumed to be 2.4% per year based on Handy Whitman Index of Public Utility Construction Costs, Pacific Region (E-6), 10-year average increase in costs (2010-2020) for all transmission plant. Capital inflation for structures and improvements was assumed to be 2.1% per year based on the inflation assumption described in item 24. The plant additions in the City are shown in Attachment B, Table B-1.

29. For the cost approach, the amount of accumulated depreciation was estimated based on the age of the assets and depreciation parameters (average service life, survivor curves, and net salvage rates) for PG&E approved by the Commission using the straight-line method of depreciation. In addition, the maximum amount of accumulated depreciation assumed in the analysis was 90%, leaving 10% of the estimated original cost value for older plant that has survived beyond the assumed useful life.

30. For the cost approach, the net salvage rates used to develop the Replacement Cost New Less Depreciation value were assumed to equal PG&E's current net salvage rates authorized by the CPUC at the date of valuation. To develop the original cost less depreciation (OCLD)/rate base value for the Subject Property, NewGen assumed that the applicable net salvage rate for an asset is equal to the average historical net salvage rate based on the age of the asset and PG&E's historical net salvage rates over the time period.

31. For the purpose of performing the discounted cash flow analysis under the income approach, NewGen assumed that the purchaser's depreciation expenses used in calculating income taxes would be equal

to the income approach value depreciated at 20-year Modified Accelerated Cost Recovery System (MACRS) tax depreciation rates.

32. For the purpose of performing the discounted cash flow analysis under the income approach, NewGen assumed a study period of 10 years. For the terminal value, the projected cash flow in year 10 was capitalized into perpetuity at a capitalization rate developed based on the discount rate (6.2%) less earnings growth rate (2.1%), and then discounted back to the date of value.
33. For the purpose of performing the appraisal, NewGen assumed that a potential purchaser of the Subject Property would be able to operate the Subject Property in accordance with contractual terms and conditions of any existing contracts, and that any agreements, rights, and easements would be assigned to the potential purchaser.
34. Mr. Grant Rabon, ASA, Partner at NewGen, is responsible for the analysis and conclusions described in this report. His qualifications and experience are provided in Attachment E. With the exception of the facilities inventory, estimated age, and engineering cost estimates, as developed by Advisian-Siemens, and the real property appraisal report prepared by Runde & Partners, Inc., no one outside NewGen provided significant assistance to the preparation of this report.
35. The studies and analyses undertaken in the preparation of the opinions contained herein were performed in accordance with USPAP.

Section 3
DESCRIPTION OF THE PROPERTY

Subject Property

The Subject Property of this appraisal report consists of the land, property and rights that comprise the electrical distribution and transmission facilities located within the municipal boundaries of the City, presently owned and operated by PG&E, that are needed to provide electrical service to end users located within the City. In addition, the Subject Property includes certain facilities at and originating from PG&E's Martin Substation, which is located outside the City's municipal boundaries. The City seeks to acquire the Subject Property in order to own and operate the Subject Property as a municipal electric utility.

NewGen relied on data and analyses contained in the Advisian-Siemens engineering report to establish the inventory of assets the City would acquire, their approximate age, and their Replacement Cost New. NewGen reviewed the methodology Advisian-Siemens used to develop the inventory, estimated age, and Replacement Cost New of PG&E's electrical distribution and transmission assets in the City.

In addition, NewGen relied on data and analyses contained in the real property appraisal report prepared by Runde & Partners, Inc., to establish the inventory of real property assets the City would acquire, the approximate age or year when the assets were acquired or constructed, and fair market value of the assets as of July 27, 2021.

Below is a list of assets and asset categories comprising the Subject Property. A more detailed description and inventory of the Subject Property assets is provided in Attachment A (Cost Approach Analysis), with still further detail available in the Advisian-Siemens engineering report (listing those assets related to the electrical system) and the Runde & Partners real property report (listing real property assets).

- Transmission Substations
  - Embarcadero Substation
  - Potrero Substation
  - Hunters Point Substation
  - Larkin Substation
  - Mission Substation
  - Bayshore Substation
  - Martin Substation
- Distribution Voltage-Level Assets within Transmission Substations – including all medium voltage assets located within the transmission substations
- Transmission Lines
  - Two 230 kilovolt (kV) underground cables connecting the Martin 230 kV Substation to the 230 kV Embarcadero Substation and the 230 kV underground cable connecting the Embarcadero 230 kV Substation and the Potrero 230 kV Substation

- 115 kV underground cables starting from Martin 115 kV Substation and continuing north to the 115 kV substations in the City, and all 115 kV assets within the City boundary
- The Subject Property does not include the Trans Bay Cable (which is not owned by PG&E)

- Distribution Substations
  - 25 Medium Voltage (MV)[4] substations located throughout the City
- Distribution Line Facilities
  - Primary overhead conductors, ranging from 4 kV to 12 kV
  - Support structures (i.e., poles)
  - Primary underground conductors, ranging from 4 kV to 35 kV
  - Conduit systems
  - Distribution line transformers, most of which are underground, subsurface, and pad-mount (in lieu of pole-mount)
  - Secondary overhead and underground conductor and services
  - Primary meters used to measure demand and energy at the MV level
  - Secondary meters used to measure customer usage at various points of the secondary distribution system
  - Streetlights – approximately 17,980 streetlights in the City are owned by PG&E; the remaining streetlights in the City (approximately 30,000 fixtures) are owned by the City
  - Other distribution plant
    - Capacitor banks
    - Voltage regulators
    - Switches
    - Fuses
    - Risers
    - Network protectors
    - Smart network devices
    - Pad-mount and subsurface structures
    - Reclosers and Interrupters
    - Direct current (DC) assets
- AMI Communications Equipment
- Communication Assets
- Spare Parts Inventory

[4] Medium voltage is 4.16 kV, 12 kV and 34.5 kV. High voltage is 115 kV and 230 kV.

- Real Property – The Subject Property includes the following real property interests that are addressed in the appraisal report prepared by Runde & Partners, Inc.:
  - Thirty-three (33) PG&E transmission and distribution substation sites located throughout the City, ranging in size from approximately 1,875 square feet to nearly 30 acres, including the site with zero improvements for PG&E's proposed Egbert Switching Station
  - Site improvements and structures
  - Appurtenant easements, licenses, permits, agreements, and similar rights held by PG&E to use property owned in fee by others, including for purposes of providing electric service in San Francisco
- Existing maps, drawings, operation and maintenance logs, and other engineering and operations records for the assets acquired
- PG&E electric utility customer billing and service records, by customer and rate schedule, for customers located within the City

Section 4
ANALYSES

Fair Market Value Analyses

There are three generally accepted approaches to estimating the value of property:

- Cost Approach – the value of the property is based on the premise that an informed buyer would pay no more than the cost of producing a substitute property with the same function or utility as the Subject Property.
- Income Approach – the value of the property is estimated by capitalizing or determining the present value of the prospective net earnings from the property.
- Sales Comparison (or Market) Approach – the value of the property is estimated based on recent fair market sales of similar facilities under similar circumstances.

NewGen considered all three approaches to valuation to determine the Fair Market Value of the Subject Property.

Effect of Utility Rate Regulation on Value

The Subject Property is used to provide rate regulated electric service to customers located in the City. When appraising the reasonable market value of regulated utility property, it is important to understand utility rate regulation and how utility rates are determined. In exchange for being granted the right to be the monopoly service provider, the utility agrees to have its rates regulated by the state public utilities commission, in this case the Commission.

Under utility rate regulation, a utility is allowed to charge rates based on cost of service that are projected to produce revenues equal to the utility's total revenue requirement. The term "revenue requirement" refers to the utility's total cost of serving its customers, including a reasonable rate of return as determined by the Commission.

Under the utility approach to ratemaking customarily used by IOUs, and adopted by the Commission, the total revenue requirement is generally equal to the utility's reasonable operating expenses, depreciation expense and taxes, plus the utility's authorized rate of return times rate base.

Rate base is the value of property on which a utility is allowed to earn its authorized rate of return and is generally equal to the OCLD of the utility's plant in service with various adjustments for other elements, such as cash working capital, prepayments, inventories, customer contributed capital, accumulated deferred income tax, etc. The utility's authorized rate of return is determined by an analysis of the WACC for the utility.

As a result of rate regulation, and the way utility rates are developed, the income value of regulated utility property is typically tied to (but not necessarily equal to) the rate base value of the property, as described below.

The income approach estimates the value of property by capitalizing or determining the present worth of anticipated economic benefits from the property as a going concern. Under the direct capitalization of earnings method, the income value of the property is estimated by capitalizing (i.e., dividing) the net

income associated with the property for a one-year period by an appropriate capitalization rate.[5] This is shown in Equation (1) below:

$$(1) \qquad Value = \frac{(Revenues - Expenses)}{Capitalization\ Rate}$$

In theory, the income value for a regulated utility should approximately equal its rate base value since this is the value of the utility's investment on which it is allowed to earn its authorized rate of return. The majority of rate base is composed of the original cost of plant in service less accumulated depreciation.

Under cost-of-service ratemaking procedures approved by the Commission, utility rates are designed to produce revenues that recover the utility's operating expenses (inclusive of depreciation and taxes) plus a return on rate base, as shown in Equation (2) below:

$$(2) \qquad Revenues = Expenses + (Rate\ of\ Return)(Rate\ Base)$$

Equation (2) can be restated as follows:

$$(3) \qquad Rate\ Base = \frac{(Revenues - Expenses)}{Rate\ of\ Return}$$

By comparing Equations (1) and (3), one can see that the capitalized income value for regulated utility property is generally equivalent to its rate base value. The only distinction of significance is that the capitalization rate is generally equal to the rate of return (WACC) minus an assumed long-term earnings growth rate. Thus, the assumed long-term earnings growth rate (if it is greater than 0%) causes the value of the utility to be some amount greater than rate base.

Under the principle of substitution, an informed buyer would pay no more than the cost of producing a substitute property with the same utility as the Subject Property. However, an informed buyer (unencumbered by non-financial or strategic objectives) would also pay no more than the income value of the property. In the case of rate regulated utility property, the income value is generally close to rate base, which is primarily composed of the OCLD value, assuming that utility rates are based on cost of service. This is because the net income (return) a utility can earn is determined based on the utility's authorized rate of return multiplied by the value of its rate base.

Cost Approach

The cost approach is based on the premise that an informed buyer would pay no more than the cost of producing a substitute property with the same function or utility as the Subject Property. A key indicator of value that is commonly considered under the cost approach when valuing public utility property is the Replacement Cost New Less Depreciation (RCNLD) value. RCNLD is the current cost of a similar new property having the nearest equivalent utility as the property being appraised, less all forms of depreciation.[6]

NewGen relied on analyses prepared by Advisian-Siemens to develop the Replacement Cost New (RCN) of the Subject Property. The RCN was developed based on the inventory of facilities to be acquired by the City and applying current unit construction costs. The RCN value includes direct construction costs (labor,

[5] The capitalization rate (also called the 'cap rate') is the annual rate of return on and return of capital, equivalent to the risk assumed by an investor. American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Fourth Edition, p. 118.

[6] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Fourth Edition, p. 34.

materials, and equipment), overhead costs, and contingency. The development of the RCN value for the Subject Property is described in the Advisian-Siemens report.

Advisian-Siemens estimated the RCN value of the inventory in 2022. Since the date of valuation in the proceeding is July 27, 2021, NewGen trended the 2022 RCN values back to 2021 cost levels using the Handy Whitman Index of Public Utility Construction Costs for the Pacific Region. Due to this adjustment, there is a difference in the NewGen and Advisian-Siemens RCN values.

NewGen reviewed the methodology and analyses Advisian-Siemens performed to develop the inventory quantities, estimated age, and estimated RCN of PG&E electrical distribution and transmission assets and determined that we could reasonably rely on Advisian-Siemens's work product to develop the indicators of value under the cost approach.

The resulting RCN value was adjusted for depreciation, which is the estimated loss in value of an asset compared with a new asset. There are three basic types or causes of depreciation:

- Physical deterioration – the loss in value or usefulness resulting from the wear and tear of an asset in operation and exposure to various elements.
- Functional obsolescence – the loss in value or usefulness caused by inefficiencies or inadequacies of the property itself, when compared to a more efficient or less costly replacement property that new technology has developed.
- Economic obsolescence – the loss in value caused by factors external to the property.[7]

The amount of accumulated depreciation due to *physical deterioration* was estimated based on the age of the facilities and current depreciation parameters (average service life, survivor curve, and net salvage rates) approved for PG&E by the Commission. An adjustment was also made to reflect the accumulated net salvage (cost of removal) based on the currently approved net salvage rates for different types of assets.

NewGen has no information about the Subject Property that suggests there is any *functional obsolescence* so no adjustment for *functional obsolescence* was made.

The Subject Property is subject to *economic obsolescence* based on utility rate regulation, which restricts the earnings of the utility to an allowed rate of return times rate base.[8] Thus, the adjustment for *economic obsolescence* was developed based on the results of the income approach, as discussed later.

The RCNLD indicator of value for the Subject Property is shown in Table 4-1. Supporting schedules showing the calculation of the RCNLD value are provided in Attachment A. The value of real property was separately appraised by Runde & Partners, Inc. and is included in Table 4-1.

Table 4-1 also shows the estimated OCLD value for the Subject Property.

The Original Cost for the Subject Property was largely taken from data provided by PG&E. In response to data requests, PG&E provided the original cost of all electric utility plant in the City.[9] NewGen made a few adjustments to this data.

[7] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Second Edition, p. 66-67.
[8] Woolery, *Valuation of Railroad and Utility Property*, 1991, p. 44.
[9] PG&E Response to Data Request CCSF_004-Q04, Attachment PGE000082649.xlxs, CONFIDENTIAL PG&E MATERIAL UNDER NON-DISCLOSURE AGREEMENT

- First, the data provided was as of December 31, 2020 and, separately, December 31, 2021. Given the date at which the appraisal was intended to reflect value (i.e., July 27, 2021), NewGen took a simple average of the balances on these two dates to use in our analysis.
- Further, given the specific real property that is part of the Subject Property was separately identified, and presumably would not align with all of the real property inside the City (as provided by PG&E), NewGen relied on the appraised values for this property provided by Runde & Partners, trended by NewGen to an estimate of its original cost, in place of the data provided by PG&E for FERC Accounts 350, 352, 360, 361, and 390 (which are the FERC Accounts for land, land rights, structures and improvements).
- Additionally, given the Martin substation is not inside the City, it would not be accounted for in PG&E's data for plant assets in the City. Thus, NewGen added the Martin substation and some related distribution assets that are included in the Subject Property to the original cost analysis based on the RCN for these assets as identified by Advisian-Siemens and trended by NewGen to an estimate of their original cost.
- Finally, there is some specific spare equipment identified by the Advisian-Siemens team as part of the Subject Property, which is not in service and, therefore, would not be accounted for in PG&E's data for plant assets in the City, so NewGen added these assets.

Trending to estimate the original cost when installed was based primarily on Handy Whitman Cost Index values or, in the case of land and land rights, based on the Consumer Price Index (CPI).

Next, an estimate of accumulated depreciation was developed based on survivor curves and net salvage rates approved for PG&E by the Commission. The accumulated depreciation was subtracted from the estimated original cost to estimate OCLD. However, because NewGen assumes that any asset still in service has value, NewGen ensured that none of the OCLD values for any FERC Accounts were less than 10% of the original cost for the FERC Account. This required a couple of relatively minor adjustments.

Table 4-1
Cost Approach Indicators of Value

	Indicators of Value
Replacement Cost New	$ 10,216,587,000
Less: Physical Deterioration and Net Salvage	(4,929,460,000)
Less: Functional Obsolescence	-
Less: Economic Obsolescence	(1,859,593,000)
Replacement Cost New Less Depreciation (RCNLD)	$ 3,427,534,000
Original Cost	$ 3,982,273,000
Less: Physical Deterioration and Net Salvage	(1,579,015,000)
Original Cost Less Depreciation (OCLD) – Rate Base Value	$ 2,403,258,000

Source: Attachment A for everything except the economic obsolescence adjustment, which was based on the results of the income approach, as shown in Attachment B.

Rate Base Value

Rate base is the value of property on which a public utility is allowed to earn its authorized rate of return and is approximately equal to the OCLD value of the utility's plant in service, with adjustments for some miscellaneous items, such as working capital, inventories, prepaid expenses, customer contributed capital, and Accumulated Deferred Income Tax. As discussed previously, for rate regulated utility property, such as the Subject Property, the OCLD value is a relevant indicator of value because it is generally the largest component in rate base for ratemaking purposes. Supporting detail showing the calculation of the OCLD value is provided in Attachment A.

It is worth noting that there are at least two key differences between the OCLD value developed by NewGen and the net plant balances in PG&E's rate base that cause OCLD to be larger. First, it is possible for the net book value of assets to be zero dollars in rate base if the utility plant has been fully depreciated. In fact, it is possible for the value to be negative due to net salvage. However, for the purposes of developing OCLD and RCNLD, NewGen assumed that any asset that is still in service has value. Thus, we set a maximum depreciation at 90%, maintaining 10% of the original cost or RCN value regardless of the age of the asset. Second, NewGen's RCN and original cost values include all relevant utility plant for the Subject Property, regardless of how PG&E came to own the property. Property contributed or funded by customers is generally not included in rate base, but NewGen has not attempted to identify or remove these assets from our cost approach analyses. Thus, the analysis by NewGen includes all assets owned by PG&E, even if they were donated to PG&E.

Going Concern Value

No adjustment was made to the RCNLD value for going concern value. Further, we do not believe it is appropriate to add any amount to the cost approach indicators of value for going concern. Going concern value is defined as "the value of an operating business enterprise, or an interest therein."[10] The income approach, as discussed below, measures the value of the property in continued use as a going concern business enterprise. Since the income value of the Subject Property is less than the RCNLD value before accounting for economic obsolescence, there is no evidence of any additional value for going concern that should be added to the RCNLD value.[11]

Income Approach

The income approach estimates the value of property by capitalizing or determining the present worth of anticipated economic benefits from the property as a going concern. Under the discounted cash flow (DCF) method, the direct economic benefits derived from continued ownership of the Subject Property are expressed in terms of free cash flow, which represents the total cash flow generated by the going concern that is available to the providers of both debt and equity capital.

The DCF model used to estimate the value of the Subject Property is essentially an after-tax cash flow model of annual revenues and expenses over a ten-year period beginning in 2021 and ending in 2030. The revenues were assumed to equal the revenue requirement developed for the Subject Property in each year of the forecast based on rate regulation treatment. The rate base was primarily composed of the OCLD developed for the cost approach, with additions for cash working capital and inventory and

[10] American Society of Appraisers, *Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets*, Second Edition, Glossary of Terms, p. 570.
[11] Shannon P. Pratt, *Valuing a Business, The Analysis and Appraisal of Closely Held Companies*, Fifth Edition, p. 888.

deductions for accumulated deferred income tax. The development of rate base as well as the revenue requirement is shown in Attachment B, Table B-2.

The calculation of free cash flow is illustrated as follows:

	Annual Operating Revenues
Less:	*Annual Operating Expenses*
Equals:	*Pre-tax Net Operating Income*
Less:	*Income Taxes*
Equals:	*Earnings Before Interest, Depreciation & Amortization (EBIDA)*
Less:	*Future Capital Expenditures*
	Net Changes in Working Capital
Equals:	*Free Cash Flow*

Under the DCF method, the income indicator of value is equal to the sum of the present value of the projected cash flows plus the present value of the projected terminal value. The series of annual cash flows from 2021 to 2030 was discounted using a 6.2% discount rate (discussed below). For the terminal (or residual) value, the projected cash flow in year 2030 was capitalized into perpetuity at a capitalization rate developed based on the discount rate (6.2%) less earnings growth rate (2.1%), and then discounted back to the date of value.[12]

Table 4-2 presents the income value for the Subject Property using the DCF method. Supporting detail is provided in Attachment B.

Table 4-2
Income Approach Indicator of Value

Discounted Cash Flow Value	$ 3,427,534,000

Source: Attachment B

Discount Rate

The discount rate used in the DCF analysis is equal to the weighted average cost of capital for a hypothetical buyer, which is assumed to be a taxable corporate entity. The discount rate of 6.2% for the hypothetical corporate buyer is based on an analysis of the weighted average cost of capital for a proxy group of investor-owned electric utilities and reflects a capital structure equal to 55.4% debt and 44.6% equity, with a cost of debt equal to 4.26% and average cost of equity equal to 10.0%. The combined Federal and state income tax rate is equal to 27.98% based on 21% Federal and 8.84% California state corporate tax rates. The calculation of the weighted average cost of capital (discount rate) used in the DCF analysis is shown in Attachment C.

[12] In calculating the terminal value, the cash flow in 2030 was increased by one year of growth at 2.1% to get the cash flow in 2031 and then divided by the capitalization rate (6.2% discount rate less 2.1% growth rate). This provides the value of all future cash flows in 2030, which is then discounted to a value in 2021.

Sales Comparison Approach

The sales comparison approach involves review of recent sales of similar facilities between a willing buyer and a willing seller, who are unrelated, as an indication of the market price for such facilities. The guideline sale transactions method under the sales comparison approach is primarily applicable to property that is readily substitutable and where a number of similar types of properties have recently been sold. Caution must be exercised when using the comparable sales method as an indicator of value for utility property. Normally, the appraiser will, when necessary, make adjustments to the guideline sale transactions in order to correlate the sales price to the characteristics of the subject property. However, there are many factors that can influence sales price including, among others, market area, age, condition, and other considerations that may be reflected in the sales price. Each party's motivation can affect the negotiation and the terms of the sale. Strategic objectives are the driving motivator for some sales. These objectives are often kept confidential and are not available to an appraiser for evaluation. For this reason, we generally use the sales comparison approach as a test of the reasonableness of values produced by the cost and income approaches.

Table 4-3 shows select sales transactions involving electric utility distribution property that occurred from 2011 through 2022. All of the sales shown in Table 4-3 were negotiated sales and did not involve the exercise of eminent domain. There is a wide variation in the size, location, and type of plant (e.g., some sales include generation plant) for these sales, and no attempt was made to adjust the sales to correlate with the characteristics of the Subject Property. More information regarding the guideline sale transactions is provided in Attachment D.

Table 4-3
Electric Utility Sales Transactions

No.	Year	State	Buyer	Seller	Purchase Price	Net Plant	Purchase Price/ Net Plant
1	2011	CA	California Pacific Electric Co. (Liberty Energy)	Sierra Pacific Power Co.	$ 136,418,000	$ 123,599,000	1.10
2	2011	OH	AES Corporation	DPL, Inc. (Dayton Power & Light)	$ 4,719,000,000	$ 2,965,600,000	1.59
3	2012	NH	Liberty Energy NH	Granite State Electric Co.	$ 83,000,000	$ 81,380,000	1.02
4	2015	IA, MN	Southern Minnesota Energy Cooperative	Interstate Power & Light	$ 129,000,000	$ 105,189,000	1.23
5	2017	MO, KS, OK, AR	Liberty Utilities Co. (Algonquin)	The Empire District Electric Company	$ 2,348,510,000	$ 1,910,800,000	1.23
6	2019	TX	AEP Texas, Inc.	Oncor Electric Delivery Company, LLC	$ 17,956,000	$ 17,956,000	1.00
7	2019	FL	NextEra Energy	Gulf Power Company	$ 5,657,000,000	$ 3,835,874,052	1.47
8	2020	ME	ENMAX	Emera Maine	$ 1,295,000,000	$ 1,066,820,818	1.21
9	2020	TN	Middle Tennessee Electric Membership Corporation	Murfreesboro Electric Department	$ 202,000,000	$ 152,382,078	1.33
10	2020	AK	Chugach Electric Association	Anchorage Municipal Light & Power	$ 986,000,000	$ 703,166,000	1.40
11	2020	TX	JP Morgan Chase	El Paso Electric Company	$ 4,370,650,000	$ 3,120,858,000	1.40
12	2022	RI	PPL Corporation	Narragansett Electric Company (National Grid)	$ 5,320,000,000	$ 3,734,291,000	1.42
						Mean	1.28

Figure 4-1 plots these sales transactions.

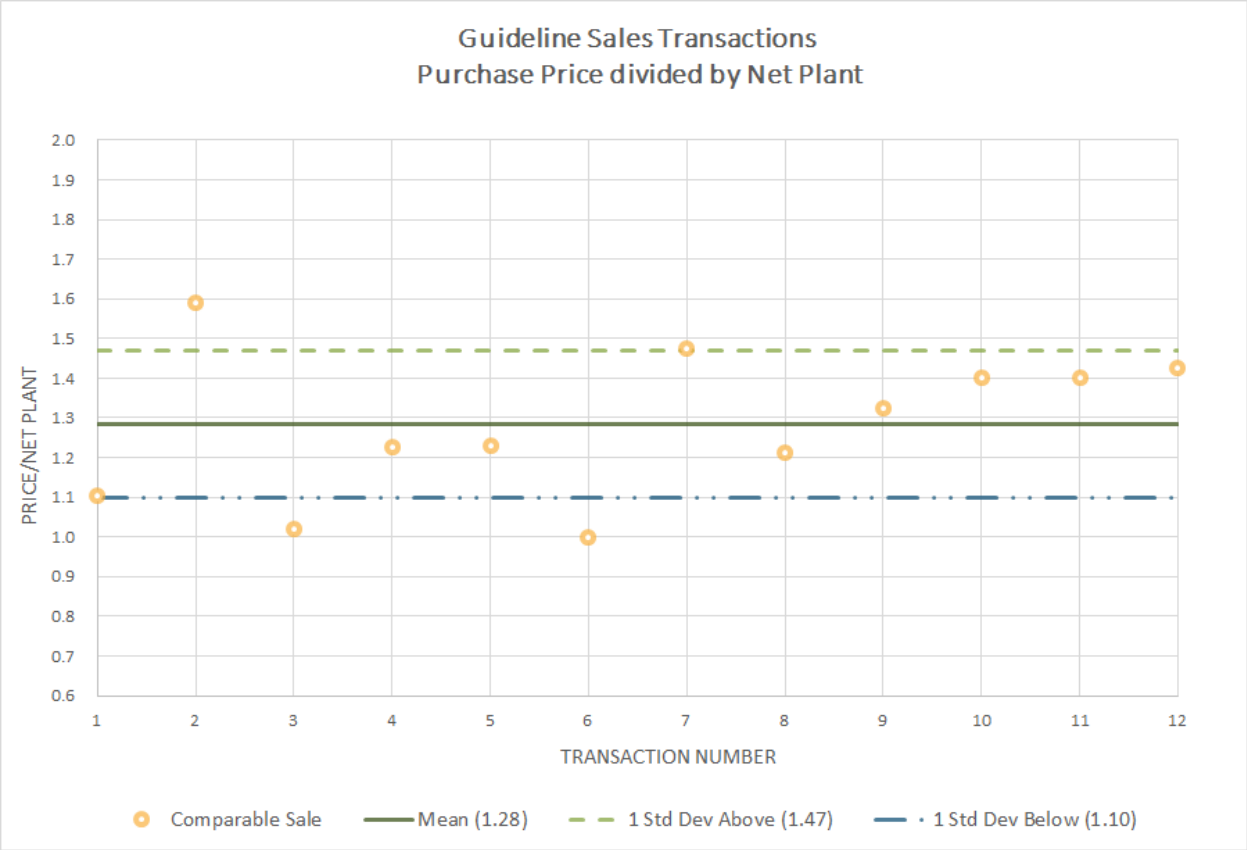

Figure 4-1 Comparable Sales Transactions

While many of the sales transactions in Table 4-3 vary in size compared to the Subject Property, examining the ratio of purchase price to net plant (OCLD) provides insight into the valuation of rate regulated property in willing buyer/willing seller transactions. The average (mean) ratio results in a purchase price equal to 1.28 times net plant. Most of the sales are within plus or minus one standard deviation from the mean, i.e., 1.10 to 1.47 times net plant, which corresponds to a range of value under the sales comparison approach for the Subject Property of approximately $2.6 billion to $3.5 billion based on an OCLD (net plant) value of electric plant of $2,403,258,000 (rounded). The average (mean) ratio of 1.28 times net plant when applied to the Subject Property yields a purchase price shown in Table 4-4.

Table 4-4
Sales Comparison Approach Indicator of Value

Based on Average Ratio of Purchase Price to Net Plant	$ 3,086,563,000

Source: Attachment D

Section 5
CONCLUSIONS

Based on the results of our analyses and the limiting assumptions and conditions described in this report, NewGen developed indicators of value using generally accepted approaches to valuation. These indicators of value are summarized in Table 5-1.

Table 5-1
Summary of Indicators of Value

	Indicators of Value
Cost Approach:	
Replacement Cost New	$ 10,216,587,000
Less: Physical Deterioration and Net Salvage	(4,929,460,000)
Less: Functional Obsolescence	-
Less: Economic Obsolescence	(1,859,593,000)
Replacement Cost New Less Depreciation (RCNLD)	$ 3,427,534,000
Original Cost	$ 3,982,273,000
Less: Physical Deterioration and Net Salvage	(1,579,015,000)
Original Cost Less Depreciation (OCLD) – Rate Base Value	$ 2,403,258,000
Income Approach:	
Discounted Cash Flow	$ 3,427,534,000
Sales Comparison Approach:	
Guideline Sale Transactions	$ 3,086,563,000
Estimated Fair Market Value of Subject Property as of July 27, 2021	**$ 3,428,000,000**

The definition of FMV used in California refers to the highest price on the date of valuation that would be agreed to by a willing seller and willing buyer.[13] However, this does not imply that the FMV of the Subject Property is equal to the highest indicator of value developed in the appraisal. In this appraisal report, NewGen considered and evaluated all three generally accepted approaches to valuation (cost, income, and sales comparison approaches) in developing our opinion of the FMV of the Subject Property.

Under the principle of substitution, an informed buyer would pay no more than the cost of producing a substitute property with the same utility as the Subject Property. However, an informed buyer (unencumbered by non-financial or strategic objectives) would also pay no more than the income value of the property. As discussed earlier in this report, the effect of utility rate regulation is an important consideration in valuing public utility property. Under standard ratemaking procedures, rate regulated utilities are allowed the opportunity to earn a fair and reasonable rate of return on their rate base (predominately composed of the OCLD value of the plant assets). Operating expenses are essentially a

[13] California Code of Civil Procedure Section 1263.320.

pass-through cost recovered through rates. Thus, in theory, the income value for rate regulated utility property is tied to its rate base value since this is the value of the utility's investment on which it is allowed to earn its authorized rate of return or profit.

An informed buyer would not be willing to pay a price for the Subject Property that exceeds the income value of the property (absent unique synergies or motivations of the buyer that would not align with the Fair Market Value concept). Therefore, the RCNLD value without adjustment for economic obsolescence is not a relevant indicator of the value for the Subject Property. NewGen tested for the presence of economic obsolescence by comparing the income approach value and the RCNLD value before economic obsolescence and found that economic obsolescence does exist.

The income value of the Subject Property supports paying a price that is greater than the OCLD value due, in part, to the expected growth in earnings. The capitalized income value for regulated utility property is generally equivalent to its rate base value. The only distinction of significance is that the capitalization rate is generally equal to the rate of return (WACC) minus an assumed long-term earnings growth rate. Thus, the assumed long-term earnings growth rate (if it is greater than 0%) causes the value of the utility to be some amount greater than rate base.

The sales comparison approach indictor of value using the guideline sale transactions method has some weaknesses previously identified that bear on its reliability in the determination of Fair Market Value, but the results of the sales comparison approach generally support the income approach value for the Subject Property (i.e., the income approach value is within one standard deviation from the mean under the sales comparison approach).

After consideration of the indicators of value developed using generally accepted approaches to valuation, given the relative strengths and weaknesses of each and the analyses and assumptions used therein, NewGen is of the opinion that the Fair Market Value of the Subject Property as of July 27, 2021 is equal to **$3,428,000,000** (as indicated by the value under the income approach).

APPRAISAL CERTIFICATION

I, the undersigned, certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are impartial and unbiased professional analyses, opinions, and conclusions.
- NewGen Strategies and Solutions, LLC (NewGen) has no present or prospective interest in the properties that are the subject of this report, and NewGen has no interest or bias with respect to the parties involved.
- NewGen's engagement in this assignment was not contingent upon developing or reporting predetermined results.
- NewGen's compensation is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the Client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- The analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the Appraisal Standards Board of the Appraisal Foundation and the Principles of Appraisal Practice and Code of Ethics of the American Society of Appraisers.
- The American Society of Appraisers has a mandatory recertification program for all its Senior Members and Grant Rabon, ASA is in compliance with that program.
- Zachary Wright, ASA (Partner at NewGen) and Nicholas Coomer (Manager at NewGen) provided significant personal property appraisal assistance to the person signing this certification.
- Grant Rabon performed a site visit to observe accessible portions of the Subject Property in connection with this appraisal.

Respectfully Submitted,

NewGen Strategies and Solutions, LLC

Signed by:
Grant Rabon
D0BBF3F379164C0...

Grant Rabon, ASA

April 20, 2026

NewGen Strategies & Solutions, LLC
8140 North Mopac Expressway, Suite 1-240
Austin, TX 78759

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Attachment A
COST APPROACH: RCNLD AND OCLD ANALYSIS

CONFIDENTIAL

Attachment B
INCOME APPROACH: DISCOUNTED CASH FLOW ANALYSIS

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Assumptions

No.			Notes
A	B C	D	E
1	**Plant In Service - CCSF**		
2	**Distribution (excluding Land and Structures & Improvements, but including Communications Equipment)**		
3	Original Cost (OC)	$ 2,783,935,293	Balance at 7/27/2021, Cost Approach Analysis
4	OCLD / Rate Base	$ 1,504,234,188	Balance at 7/27/2021, Cost Approach Analysis
5	**Transmission (Excluding Land and Structures & Improvements)**		
6	Original Cost (OC)	$ 985,991,342	Balance at 7/27/2021, Cost Approach Analysis
7	OCLD / Rate Base	$ 720,200,066	Balance at 7/27/2021, Cost Approach Analysis
8	**Structures & Improvements**		
9	Original Cost (OC)	$ 60,916,231	Balance at 7/27/2021, Cost Approach Analysis
10	OCLD / Rate Base	$ 27,394,029	Balance at 7/27/2021, Cost Approach Analysis
11	**Land**		
12	Original Cost (OC)	$ 108,268,271	Balance at 7/27/2021, Cost Approach Analysis
13	**Spares**		
14	Original Cost (OC)	$ 43,161,878	Balance at 7/27/2021, Cost Approach Analysis
15			
16	**Additions, Retirements and Depreciation**		
17	**Distribution**		
18	Retirements as % of Additions	8.49%	Average 2011 through 2021, developed from Plant Additions, Retirements and Balances in City of San Francisco, PGE000082649
19			
20	Depreciation as % of Original Cost	3.54%	Developed based on PG&E authorized depreciation rates (2020 GRC, A.18-12-009, Decision 20-12-005 , December 3, 2020) applied to the Original
21			Cost developed in the Cost Approach for assets within CCSF
22			
23	Annual increase construction costs	3.60%	Handy Whitman Index of Public Utility Construction Costs, Pacific Region (E-6), 10-year average increase in costs (2010-2020) for all distribution plant
24			
25	**Transmission**		
26	Retirements as % of Additions	3.00%	Average 2011 through 2021, developed from Plant Additions, Retirements and Balances in City of San Francisco, PGE000082649
27			
28	Depreciation as % of Original Cost	2.38%	Developed based on PG&E authorized depreciation rates (2020 GRC, A.18-12-009, Decision 20-12-005 , December 3, 2020) applied to the Original
29			Cost developed in the Cost Approach for assets within CCSF
30			
31	Annual increase construction costs	2.40%	Handy Whitman Index of Public Utility Construction Costs, Pacific Region (E-6), 10-year average increase in costs (2010-2020) for all transmission plant
32			
33	**Structures & Improvements**		
34	Retirements as % of Additions	6.76%	Average 2012 through 2021, developed from Plant Additions, Retirements and Balances in City of San Francisco, PGE000082649 (2011 considered an outlier)
35			
36	Depreciation as % of Original Cost	1.52%	Developed based on PG&E authorized depreciation rates (2020 GRC, A.18-12-009, Decision 20-12-005 , December 3, 2020) applied to the Original
37			Cost developed in the Cost Approach for assets within CCSF (weighted between FERC Account 352 and 361)
38			
39	Annual increase construction costs	2.10%	Assumed Inflation Rate
40			
41	**Annual Growth - CCSF**		
42	PG&E Service Area - Greater Bay Area	0.70%	California Energy Commission (CEC), 2022 Integrated Energy Policy Report (2022 IEPR), California Energy Demand 2022-2035 Forecast - Planning Forecast, Form
43			1.5b - 1.5d, Net Electricity Peak Demand by Agency and Balancing Authority (MW), PG&E Service Area - Greater Bay Area
44			
45	**Inflation Rate**	2.10%	Blue Chip Economic Indicators, Vol. 46, No. 3, March 12, 2021, page 14, Long-Range Consensus GDP Chained Price Index (2023-2027 and 2028-2032)
46			Note: BCEI, Vol. 47, No. 10, October 10, 2022, page 14, Long-Range Consensus GDP Chained Price Index = 2.1% (2024-2028) and 2.0% (2029-2033)
47	**Operating Ratios**		
48	Operating expense ratio (excluding Depreciation)	36.38%	Percent of Revenues, developed based on data in PG&E 2020 CPUC General Rate Case, Application 18-12-009, Decision 20-12-005 (12/3/20), Appendix B,
49	Taxes other than income taxes ratio	5.08%	Decision Tables - Summary of Earnings (Test Year 2020), Table 1-A, Adopted Results of Operations at Proposed Rates.
50			

Assumptions

No.			Notes
A	B C	D	E
51	**Income Taxes**		
52	Federal income tax rate	21.00%	Statutory rate
53	State corporate tax rate	8.84%	California statutory rate
54	Combined statutory federal and state income tax rates	27.98%	equals 1-((1-FITR)*(1-SITR))
55	Net-to-gross multiplier	1.3886	
56			
57	**Hypothetical Buyer**		
58	WACC	6.20%	Attachment C of NewGen Report
59	Working Capital	45	days/365 days times Operating Expenses and Taxes Other than Income Taxes
60	Earnings Growth Rate	2.10%	Estimate of long-range GDP

Table B-1
Plant in Service in the City and County of San Francisco

Line No.	12-months beginning July 27:		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Compound Annual Growth
A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**DISTRIBUTION**												
2	BOY Original Cost		$ 2,783,935,293	$ 2,866,049,952	$ 2,951,716,235	$ 3,041,087,756	$ 3,134,324,774	$ 3,231,594,480	$ 3,333,071,295	$ 3,438,937,185	$ 3,549,381,986	$ 3,664,603,746	3.1%
3	Additions	a, b	89,732,991	93,614,122	97,663,120	101,887,245	106,294,072	110,891,503	115,687,783	120,691,511	125,911,660	131,357,591	4.3%
4	Retirements	c	(7,618,331)	(7,947,839)	(8,291,599)	(8,650,227)	(9,024,367)	(9,414,689)	(9,821,893)	(10,246,709)	(10,689,900)	(11,152,259)	4.3%
5	EOY Original Cost		$ 2,866,049,952	$ 2,951,716,235	$ 3,041,087,756	$ 3,134,324,774	$ 3,231,594,480	$ 3,333,071,295	$ 3,438,937,185	$ 3,549,381,986	$ 3,664,603,746	$ 3,784,809,078	3.1%
6													
7	BOY Depreciation Reserve	d	$ 1,279,701,105	$ 1,372,087,512	$ 1,467,114,135	$ 1,564,895,167	$ 1,665,549,741	$ 1,769,202,146	$ 1,875,982,041	$ 1,986,024,698	$ 2,099,471,238	$ 2,216,468,886	6.3%
8	Depreciation Expense	e	100,004,739	102,974,462	106,072,631	109,304,802	112,676,771	116,194,584	119,864,550	123,693,249	127,687,547	131,854,607	3.1%
9	Retirements		(7,618,331)	(7,947,839)	(8,291,599)	(8,650,227)	(9,024,367)	(9,414,689)	(9,821,893)	(10,246,709)	(10,689,900)	(11,152,259)	4.3%
10	EOY Depreciation Reserve		$ 1,372,087,512	$ 1,467,114,135	$ 1,564,895,167	$ 1,665,549,741	$ 1,769,202,146	$ 1,875,982,041	$ 1,986,024,698	$ 2,099,471,238	$ 2,216,468,886	$ 2,337,171,234	6.1%
11													
12	EOY Net Plant		$ 1,493,962,440	$ 1,484,602,100	$ 1,476,192,589	$ 1,468,775,033	$ 1,462,392,334	$ 1,457,089,254	$ 1,452,912,486	$ 1,449,910,748	$ 1,448,134,860	$ 1,447,637,844	-0.3%
13													
14	Net Additions	f	$ 82,114,660	$ 85,666,283	$ 89,371,521	$ 93,237,018	$ 97,269,706	$ 101,476,815	$ 105,865,890	$ 110,444,802	$ 115,221,760	$ 120,205,332	
15	Net Additions as % of BOY plant		2.9%	3.0%	3.0%	3.1%	3.1%	3.1%	3.2%	3.2%	3.2%	3.3%	
16													
17	**TRANSMISSION**												
18	BOY Original Cost		$ 985,991,342	$ 1,006,187,178	$ 1,027,012,478	$ 1,048,486,862	$ 1,070,630,558	$ 1,093,464,430	$ 1,117,009,987	$ 1,141,289,413	$ 1,166,325,579	$ 1,192,142,073	2.1%
19	Additions	g, h	20,820,450	21,469,382	22,138,539	22,828,553	23,540,074	24,273,771	25,030,336	25,810,481	26,614,942	27,444,477	3.1%
20	Retirements	i	(624,613)	(644,081)	(664,156)	(684,857)	(706,202)	(728,213)	(750,910)	(774,314)	(798,448)	(823,334)	3.1%
21	EOY Original Cost		$ 1,006,187,178	$ 1,027,012,478	$ 1,048,486,862	$ 1,070,630,558	$ 1,093,464,430	$ 1,117,009,987	$ 1,141,289,413	$ 1,166,325,579	$ 1,192,142,073	$ 1,218,763,216	2.2%
22													
23	BOY Depreciation Reserve	d	$ 265,791,276	$ 288,873,587	$ 312,424,581	$ 336,458,867	$ 360,991,508	$ 386,038,036	$ 411,614,468	$ 437,737,321	$ 464,423,625	$ 491,690,942	7.1%
24	Depreciation Expense	j	23,706,924	24,195,076	24,698,442	25,217,497	25,752,730	26,304,646	26,873,763	27,460,618	28,065,765	28,689,773	2.1%
25	Retirements		(624,613)	(644,081)	(664,156)	(684,857)	(706,202)	(728,213)	(750,910)	(774,314)	(798,448)	(823,334)	3.1%
26	EOY Depreciation Reserve		$ 288,873,587	$ 312,424,581	$ 336,458,867	$ 360,991,508	$ 386,038,036	$ 411,614,468	$ 437,737,321	$ 464,423,625	$ 491,690,942	$ 519,557,380	6.7%
27													
28	EOY Net Plant		$ 717,313,592	$ 714,587,897	$ 712,027,995	$ 709,639,051	$ 707,426,394	$ 705,395,519	$ 703,552,092	$ 701,901,954	$ 700,451,131	$ 699,205,835	-0.3%
29													
30	Net Additions	f	$ 20,195,836	$ 20,825,300	$ 21,474,383	$ 22,143,697	$ 22,833,871	$ 23,545,558	$ 24,279,425	$ 25,036,167	$ 25,816,494	$ 26,621,142	
31	Net Additions as % of BOY plant		2.0%	2.1%	2.1%	2.1%	2.1%	2.2%	2.2%	2.2%	2.2%	2.2%	
32													
33	**STRUCTURES & IMPROVEMENTS**												
34	BOY Original Cost		$ 60,916,231	$ 63,207,094	$ 65,562,438	$ 67,984,078	$ 70,473,880	$ 73,033,762	$ 75,665,697	$ 78,371,713	$ 81,153,896	$ 84,014,389	3.6%
35	Additions	k, l	2,456,953	2,526,109	2,597,211	2,670,315	2,745,476	2,822,753	2,902,205	2,983,894	3,067,881	3,154,233	2.8%
36	Retirements	m	(166,090)	(170,765)	(175,571)	(180,513)	(185,594)	(190,818)	(196,189)	(201,711)	(207,389)	(213,226)	2.8%
37	EOY Original Cost		$ 63,207,094	$ 65,562,438	$ 67,984,078	$ 70,473,880	$ 73,033,762	$ 75,665,697	$ 78,371,713	$ 81,153,896	$ 84,014,389	$ 86,955,396	3.6%
38													
39	BOY Depreciation Reserve	d	$ 33,522,202	$ 34,299,449	$ 35,107,333	$ 35,946,715	$ 36,818,482	$ 37,723,546	$ 38,662,843	$ 39,637,339	$ 40,648,022	$ 41,695,912	2.5%
40	Depreciation Expense	n	943,337	978,648	1,014,954	1,052,280	1,090,658	1,130,116	1,170,684	1,212,395	1,255,279	1,299,370	3.6%
41	Retirements		(166,090)	(170,765)	(175,571)	(180,513)	(185,594)	(190,818)	(196,189)	(201,711)	(207,389)	(213,226)	2.8%
42	EOY Depreciation Reserve		$ 34,299,449	$ 35,107,333	$ 35,946,715	$ 36,818,482	$ 37,723,546	$ 38,662,843	$ 39,637,339	$ 40,648,022	$ 41,695,912	$ 42,782,057	2.5%
43													
44	EOY Net Plant		$ 28,907,645	$ 30,455,105	$ 32,037,363	$ 33,655,398	$ 35,310,216	$ 37,002,854	$ 38,734,375	$ 40,505,874	$ 42,318,476	$ 44,173,339	4.8%
45													
46	Net Additions	f	$ 2,290,863	$ 2,355,344	$ 2,421,640	$ 2,489,802	$ 2,559,882	$ 2,631,935	$ 2,706,016	$ 2,782,183	$ 2,860,493	$ 2,941,007	
47	Net Additions as % of BOY plant		3.8%	3.7%	3.7%	3.7%	3.6%	3.6%	3.6%	3.5%	3.5%	3.5%	
48													
49	**LAND**												
50	Original Cost		$ 108,268,271	$ 108,268,271	$ 108,268,271	$ 108,268,271	$ 108,268,271	$ 108,268,271	$ 108,268,271	$ 108,268,271	$ 108,268,271	$ 108,268,271	
51													

Prepared by:
NewGen Strategies & Solutions

Table B-1
Plant in Service in the City and County of San Francisco

Line No.	12-months beginning July 27:		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Compound Annual Growth
A	B	C	D	E	F	G	H	I	J	K	L	M	N
52	**SPARES**												
53	Original Cost		$ 43,161,878	$ 43,161,878	$ 43,161,878	$ 43,161,878	$ 43,161,878	$ 43,161,878	$ 43,161,878	$ 43,161,878	$ 43,161,878	$ 43,161,878	

Notes:

a Additions in 2021 based on average of a 15-year forecast of additions; forecast is based on average service life from PG&E authorized depreciation parameters and weighted average age based on inventory data and RCN in cost approach analysis
b Growth in forecast based on assumed 0.7% annual load growth in CCSF and 3.6% annual capital inflation
c Based on 8.49% of Additions; this percent is based on Average 2011 through 2021, developed from Plant Additions, Retirements and Balances in City of San Francisco, PGE000082649
d Based on Original Cost minus Depreciated Plant and Net Salvage in Rate Base
e Based on 3.54% of average Original Cost (BOY and EOY)
f Additions less Retirements
g Additions in 2021 based on average of a 15-year forecast of additions; forecast is based on average service life from PG&E authorized depreciation parameters and weighted average age based on inventory data and RCN in cost approach analysis
h Growth in forecast based on assumed 0.7% annual load growth in CCSF and 2.4% annual capital inflation
i Based on 3% of Additions; this percent is based on Average 2011 through 2021, developed from Plant Additions, Retirements and Balances in City of San Francisco, PGE000082649
j Based on 2.38% of average Original Cost (BOY and EOY)
k Additions in 2021 based on average of additions in 2012 through 2021 developed from Plant Additions, Retirements and Balances in City of San Francisco, PGE000082649 (2011 considered an outlier)
l Growth in forecast based on assumed 0.7% annual load growth in CCSF and 2.1% annual capital inflation
m Average 2012 through 2021, developed from Plant Additions, Retirements and Balances in City of San Francisco, PGE000082649 (2011 considered an outlier)
n Based on 1.52% of average Original Cost (BOY and EOY)

Table B-2
Revenue Requirement for Rate Base

Line No.	12-months beginning July 27:		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
A	B	C	D	E	F	G	H	I	J	K	L	M
1	Total Utility Plant											
2	Distribution Plant	a	$ 2,866,049,952	$ 2,951,716,235	$ 3,041,087,756	$ 3,134,324,774	$ 3,231,594,480	$ 3,333,071,295	$ 3,438,937,185	$ 3,549,381,986	$ 3,664,603,746	$ 3,784,809,078
3	Transmission Plant	a	1,006,187,178	1,027,012,478	1,048,486,862	1,070,630,558	1,093,464,430	1,117,009,987	1,141,289,413	1,166,325,579	1,192,142,073	1,218,763,216
4	Structures & Improvements	a	63,207,094	65,562,438	67,984,078	70,473,880	73,033,762	75,665,697	78,371,713	81,153,896	84,014,389	86,955,396
5	Land and Land Rights	a	108,268,271	108,268,271	108,268,271	108,268,271	108,268,271	108,268,271	108,268,271	108,268,271	108,268,271	108,268,271
6	Total Utility Plant		$ 4,043,712,496	$ 4,152,559,423	$ 4,265,826,967	$ 4,383,697,483	$ 4,506,360,942	$ 4,634,015,250	$ 4,766,866,582	$ 4,905,129,733	$ 5,049,028,479	$ 5,198,795,960
7												
8	Accumulated Depreciation											
9	Distribution Plant	a	$ 1,372,087,512	$ 1,467,114,135	$ 1,564,895,167	$ 1,665,549,741	$ 1,769,202,146	$ 1,875,982,041	$ 1,986,024,698	$ 2,099,471,238	$ 2,216,468,886	$ 2,337,171,234
10	Transmission Plant	a	288,873,587	312,424,581	336,458,867	360,991,508	386,038,036	411,614,468	437,737,321	464,423,625	491,690,942	519,557,380
11	Structures & Improvements	a	34,299,449	35,107,333	35,946,715	36,818,482	37,723,546	38,662,843	39,637,339	40,648,022	41,695,912	42,782,057
12	Land and Land Rights	a	-	-	-	-	-	-	-	-	-	-
13	Total Accum. Depreciation		$ 1,695,260,548	$ 1,814,646,049	$ 1,937,300,748	$ 2,063,359,731	$ 2,192,963,727	$ 2,326,259,353	$ 2,463,399,358	$ 2,604,542,886	$ 2,749,855,740	$ 2,899,510,670
14												
15	Net Utility Plant		$ 2,348,451,947	$ 2,337,913,374	$ 2,328,526,218	$ 2,320,337,752	$ 2,313,397,215	$ 2,307,755,897	$ 2,303,467,224	$ 2,300,586,847	$ 2,299,172,739	$ 2,299,285,289
16												
17	Add: Cash Working Capital	b	$ 29,064,102	$ 29,012,137	$ 29,011,627	$ 29,061,234	$ 29,160,038	$ 29,307,106	$ 29,501,861	$ 29,743,724	$ 30,011,472	$ 30,301,728
18	Add: Inventory	a, f	43,161,878	43,161,878	43,161,878	43,161,878	43,161,878	43,161,878	43,161,878	43,161,878	43,161,878	43,161,878
19	Add: Plant Held for Future Use		-	-	-	-	-	-	-	-	-	-
20	Less: Deferred Income Tax	g	(2,270,982)	(39,168,492)	(72,104,153)	(101,372,362)	(127,216,946)	(149,888,999)	(169,597,628)	(186,558,159)	(203,717,005)	(221,670,607)
21	Less: Customer Deposits		-	-	-	-	-	-	-	-	-	-
22	Rate Base		$ 2,418,406,945	$ 2,370,918,897	$ 2,328,595,570	$ 2,291,188,502	$ 2,258,502,185	$ 2,230,335,882	$ 2,206,533,335	$ 2,186,934,290	$ 2,168,629,084	$ 2,151,078,288
23												
24	After-tax Rate of Return (WACC)		6.20%	6.20%	6.20%	6.20%	6.20%	6.20%	6.20%	6.20%	6.20%	6.20%
25	Allowed Return (after income tax)		$ 149,941,231	$ 146,996,972	$ 144,372,925	$ 142,053,687	$ 140,027,135	$ 138,280,825	$ 136,805,067	$ 135,589,926	$ 134,455,003	$ 133,366,854
26	Return (before income tax)	c	208,204,285	204,115,967	200,472,289	197,251,858	194,437,844	192,012,965	189,963,768	188,276,456	186,700,534	185,189,559
27												
28	O&M Expenses (including A&G)	d	$ 206,857,205	$ 206,487,357	$ 206,483,729	$ 206,836,792	$ 207,540,010	$ 208,586,731	$ 209,972,859	$ 211,694,262	$ 213,599,897	$ 215,665,730
29	Taxes Other Than Income Taxes	e	28,884,953	28,833,309	28,832,802	28,882,103	28,980,298	29,126,459	29,320,014	29,560,386	29,826,484	30,114,951
30	Depreciation Expense	a	124,655,000	128,148,186	131,786,026	135,574,580	139,520,159	143,629,346	147,908,997	152,366,262	157,008,591	161,843,750
31	Total Operating Expenses		$ 360,397,159	$ 363,468,852	$ 367,102,558	$ 371,293,474	$ 376,040,467	$ 381,342,536	$ 387,201,871	$ 393,620,911	$ 400,434,972	$ 407,624,430
32												
33	Revenue Requirement		$ 568,601,444	$ 567,584,820	$ 567,574,846	$ 568,545,332	$ 570,478,311	$ 573,355,501	$ 577,165,639	$ 581,897,367	$ 587,135,506	$ 592,813,990
34												
35	Less Other Revenues		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36												
37	Rate Revenue Requirement		$ 568,601,444	$ 567,584,820	$ 567,574,846	$ 568,545,332	$ 570,478,311	$ 573,355,501	$ 577,165,639	$ 581,897,367	$ 587,135,506	$ 592,813,990

Notes:

a Source: Table B-1

b Based on an assumed 45 days O&M plus Taxes Other Than Income Taxes

c Based on the combined statutory federal and state income tax rates

d Based on 36.38% of revenues, which is based on average operating expense (excluding depreciation) adopted in A.18-12-009 (PG&E 2020 GRC), Decision 20-12-005 (12/3/20), Appendix B, Summary of Earnings (Test Year 2020), Table 1-A.

e Based on 5.08% of revenues, which is based on average taxes other than income taxes in A.18-12-009 (PG&E 2020 GRC), Decision 20-12-005 (12/3/20), Appendix B, Summary of Earnings (Test Year 2020), Table 1-A.

f Spares

g Source: Table B-3

Table B-3
Tax Depreciation

Line No.	12-months beginning July 27:		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
A	B	C	D	E	F	G	H	I	J	K	L	M
1	**Total Plant Tax Depreciation Basis**											
2	MACRS 20-Year	a	3.750%	7.219%	6.677%	6.177%	5.713%	5.285%	4.888%	4.522%	4.462%	4.461%
3												
4	**Capital**											
5	Initial Purchase of System (by IOU)	b	$ 3,427,533,689	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Annual Capital Additions	c	113,010,394	117,609,612	122,398,871	127,386,114	132,579,622	137,988,028	143,620,324	149,485,886	155,594,484	161,956,301
7			$ 3,540,544,083	$ 117,609,612	$ 122,398,871	$ 127,386,114	$ 132,579,622	$ 137,988,028	$ 143,620,324	$ 149,485,886	$ 155,594,484	$ 161,956,301
8												
9	**Annual Tax Depreciation**											
10	Initial Purchase & Year 1 Capital		$ 132,770,403	$ 255,591,877	$ 236,402,128	$ 218,699,408	$ 202,271,283	$ 187,117,755	$ 173,061,795	$ 160,103,403	$ 157,979,077	$ 157,943,672
11	Capital Additions - Year 2			4,410,360	8,490,238	7,852,794	7,264,746	6,719,037	6,215,668	5,748,758	5,318,307	5,247,741
12	Capital Additions - Year 3				4,589,958	8,835,974	8,172,573	7,560,578	6,992,647	6,468,780	5,982,857	5,534,877
13	Capital Additions - Year 4					4,776,979	9,196,004	8,505,571	7,868,640	7,277,569	6,732,356	6,226,633
14	Capital Additions - Year 5						4,971,736	9,570,923	8,852,341	8,189,443	7,574,274	7,006,833
15	Capital Additions - Year 6							5,174,551	9,961,356	9,213,461	8,523,520	7,883,256
16	Capital Additions - Year 7								5,385,762	10,367,951	9,589,529	8,871,427
17	Capital Additions - Year 8									5,605,721	10,791,386	9,981,173
18	Capital Additions - Year 9										5,834,793	11,232,366
19	Capital Additions - Year 10											6,073,361
20			$ 132,770,403	$ 260,002,238	$ 249,482,324	$ 240,165,156	$ 231,876,341	$ 224,648,415	$ 218,338,210	$ 212,975,086	$ 218,326,099	$ 226,001,339
21												
22	**Book Depreciation**	c	$ 124,655,000	$ 128,148,186	$ 131,786,026	$ 135,574,580	$ 139,520,159	$ 143,629,346	$ 147,908,997	$ 152,366,262	$ 157,008,591	$ 161,843,750
23												
24	**Difference Btwn Book and Tax Depreciation**		$ 8,115,403	$ 131,854,052	$ 117,696,298	$ 104,590,576	$ 92,356,182	$ 81,019,069	$ 70,429,212	$ 60,608,824	$ 61,317,508	$ 64,157,588
25												
26	**Deferred Income Tax (State and Federal)**											
27	Annual		$ 2,270,982	$ 36,897,510	$ 32,935,661	$ 29,268,208	$ 25,844,585	$ 22,672,052	$ 19,708,629	$ 16,960,531	$ 17,158,846	$ 17,953,603
28	Accumulated (for Rate Base development)		2,270,982	39,168,492	72,104,153	101,372,362	127,216,946	149,888,999	169,597,628	186,558,159	203,717,005	221,670,607

Notes:

a Modified Accelerated Cost Recovery System (MACRS), IRS Publication 946 (2020), Table A-1 (Half-Year Convention). Electric Utility Transmission and Distribution Plant is asset class 49.14 (use 20-year MACRS, Table B-2)

b Source: Table B-4

c Source: Table B-1

Table B-4
Discounted Cash Flow Analysis from Rate Base

Line No.	12-months beginning July 27:		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
A	B	C	D	E	F	G	H	I	J	K	L	M
1	Retail Rate Revenue	a	$ 568,601,444	$ 567,584,820	$ 567,574,846	$ 568,545,332	$ 570,478,311	$ 573,355,501	$ 577,165,639	$ 581,897,367	$ 587,135,506	$ 592,813,990
2	Other Operating Revenue	a	-	-	-	-	-	-	-	-	-	-
3	Total Operating Revenue		$ 568,601,444	$ 567,584,820	$ 567,574,846	$ 568,545,332	$ 570,478,311	$ 573,355,501	$ 577,165,639	$ 581,897,367	$ 587,135,506	$ 592,813,990
4												
5	O&M Expenses (including A&G)	a	$ 206,857,205	$ 206,487,357	$ 206,483,729	$ 206,836,792	$ 207,540,010	$ 208,586,731	$ 209,972,859	$ 211,694,262	$ 213,599,897	$ 215,665,730
6	Taxes Other Than Income Taxes	a	28,884,953	28,833,309	28,832,802	28,882,103	28,980,298	29,126,459	29,320,014	29,560,386	29,826,484	30,114,951
7	Depreciation Expense (book)	b	124,655,000	128,148,186	131,786,026	135,574,580	139,520,159	143,629,346	147,908,997	152,366,262	157,008,591	161,843,750
8	Expenses Before Interest & Income Taxes		$ 360,397,159	$ 363,468,852	$ 367,102,558	$ 371,293,474	$ 376,040,467	$ 381,342,536	$ 387,201,871	$ 393,620,911	$ 400,434,972	$ 407,624,430
9												
10	**Income Tax Calculation**											
11	Operating Income		$ 208,204,285	$ 204,115,967	$ 200,472,289	$ 197,251,858	$ 194,437,844	$ 192,012,965	$ 189,963,768	$ 188,276,456	$ 186,700,534	$ 185,189,559
12	Add Back: Book Depreciation		124,655,000	128,148,186	131,786,026	135,574,580	139,520,159	143,629,346	147,908,997	152,366,262	157,008,591	161,843,750
13	Less: Tax Depreciation	c	(132,770,403)	(260,002,238)	(249,482,324)	(240,165,156)	(231,876,341)	(224,648,415)	(218,338,210)	(212,975,086)	(218,326,099)	(226,001,339)
14	Operating Income for Tax Purposes		$ 200,088,882	$ 72,261,916	$ 82,775,991	$ 92,661,282	$ 102,081,662	$ 110,993,895	$ 119,534,555	$ 127,667,633	$ 125,383,026	$ 121,031,971
15												
16	Combined Income Tax Rate		27.98%	27.98%	27.98%	27.98%	27.98%	27.98%	27.98%	27.98%	27.98%	27.98%
17												
18	Income Taxes		$ 55,992,072	$ 20,221,485	$ 23,163,702	$ 25,929,963	$ 28,566,124	$ 31,060,088	$ 33,450,072	$ 35,726,000	$ 35,086,685	$ 33,869,103
19												
20	**Earnings and Cash Flow**											
21	Operating Income		$ 208,204,285	$ 204,115,967	$ 200,472,289	$ 197,251,858	$ 194,437,844	$ 192,012,965	$ 189,963,768	$ 188,276,456	$ 186,700,534	$ 185,189,559
22	Income Taxes (at statutory rates)		55,992,072	20,221,485	23,163,702	25,929,963	28,566,124	31,060,088	33,450,072	35,726,000	35,086,685	33,869,103
23	Net Income		$ 152,212,212	$ 183,894,482	$ 177,308,586	$ 171,321,896	$ 165,871,720	$ 160,952,877	$ 156,513,696	$ 152,550,457	$ 151,613,849	$ 151,320,457
24												
25	Plus: Depreciation Expense	d	$ 124,655,000	$ 128,148,186	$ 131,786,026	$ 135,574,580	$ 139,520,159	$ 143,629,346	$ 147,908,997	$ 152,366,262	$ 157,008,591	$ 161,843,750
26	Earnings before Interest, Depr & Amort		$ 276,867,213	$ 312,042,668	$ 309,094,613	$ 306,896,475	$ 305,391,879	$ 304,582,223	$ 304,422,693	$ 304,916,719	$ 308,622,441	$ 313,164,207
27												
28	Less: Capital Expenditures	b	$ 113,010,394	$ 117,609,612	$ 122,398,871	$ 127,386,114	$ 132,579,622	$ 137,988,028	$ 143,620,324	$ 149,485,886	$ 155,594,484	$ 161,956,301
29	Less: Changes in Working Capital	e	-	(51,965)	(510)	49,606	98,804	147,068	194,755	241,863	267,748	290,256
30	Free Cash Flow		$ 163,856,819	$ 194,485,020	$ 186,696,252	$ 179,460,755	$ 172,713,453	$ 166,447,127	$ 160,607,614	$ 155,188,971	$ 152,760,209	$ 150,917,650
31												
32	Discount Rate		6.2%									
33	Growth Rate		2.1%									
34	Capitalization Rate for Terminal Value		4.1%									
35												
36	Net Present Value of Cash Flows (2021 - 2030)		$ 1,240,470,812									
37	Terminal Value		3,758,217,579									
38	Present Value of Terminal Value		2,187,062,877									
39												
40	Estimated Income Value		$ 3,427,533,689									
41												
42	Income Value Divided by BOY Depreciated Plant and Net Salvage in Rate Base		1.43									

Notes:

a Source: Table B-2

b Source: Table B-1

c Source: Table B-3

d Depreciation is added back because it is a non-cash expense

e Based on an assumed 45 days O&M plus Taxes Other Than Income Taxes

Prepared by:
NewGen Strategies & Solutions

Attachment C
WEIGHTED AVERAGE COST OF CAPITAL (DISCOUNT RATE)

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Appraisal of the Electric System Owned by Pacific Gas and Electric and Serving the City and County of San Francisco
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TABLE A: UNLEVERING ELECTRIC UTILITY PROXY GROUP BETAS

Row No	Column A Company	Column B Ticker Symbol	Column C % Debt in Capital Structure [1]	Column D Tax Rate [2]	Column E % Equity in Capital Structure	Column F Levered (Published) Beta [3]	Column G Unlevered Beta [4]
1	American Electric Power Company, Inc.	AEP	58.5%	2.0%	41.5%	0.75	0.31
2	Consolidated Edison, Inc.	ED	51.5%	17.0%	48.5%	0.75	0.40
3	Dominion Energy, Inc.	D	57.5%	21.0%	42.5%	0.85	0.41
4	DTE Energy Company	DTE	59.5%	15.0%	40.5%	0.95	0.42
5	Duke Energy Corporation	DUK	54.5%	7.0%	45.5%	0.85	0.40
6	Edison International	EIX	55.0%	0.0%	45.0%	0.95	0.43
7	Eversource Energy	ES	53.5%	20.0%	46.5%	0.90	0.47
8	NextEra Energy Inc.	NEE	53.5%	9.0%	46.5%	0.90	0.44
9	Pinnacle West Capital Corporation	PNW	55.0%	12.0%	45.0%	0.90	0.43
10	Sempra Energy	SRE	49.0%	16.0%	51.0%	0.95	0.53
11	The Southern Company	SO	61.0%	14.0%	39.0%	0.95	0.41
12	WEC Energy Group, Inc.	WEC	54.0%	13.5%	46.0%	0.80	0.40
13	Xcel Energy Inc.	XEL	57.5%	21.0%	42.5%	0.80	0.39
14	Average		55.4%	12.9%	44.6%	0.87	0.42

15 ***Footnotes:***

16 [1] Capital structure as forecast by Value Line Investment Survey reports prior to date of valuation.

17 [2] Income tax rates as forecast by Value Line Investment Survey reports prior to date of valuation. Assumed 21% rate if forecast unavailable.

18 [3] Most recent Value Line Investment Survey reports prior to date of valuation.

19 [4] See *Valuing a Business* , Fourth Edition, by Pratt, Reilly and Schweihs, page 169. Published betas for publicly traded stocks reflect the actual financial leverage of the company's capital structure. An unlevered beta is the beta the company would have if it had no debt. Unlevering the betas removes the effect of each company's financial leverage on the guideline betas.

20 $$B_U = B_L / (1+(1-t)(W_d/W_e))$$

21 where B_U = Beta unlevered

22 B_L = Beta levered

23 t = tax rate for company

24 W_d = Percent debt in the capital structure

25 W_e = Percent equity in the capital structure

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TABLE B: RELEVERING GUIDELINE COMPANY BETA

Row No.	Column A Debt [1]	Column B Tax Rate	Column C Equity	Column D Unlevered Beta	Column E Beta Levered [2]
1	55.4%	12.9%	44.6%	0.42	0.87

2 ***Footnotes:***

3 [1] Average debt, tax rate and beta for electric utility proxy group shown in Table A.

4 [2] Unlevered beta calculated based on formula provided in *Valuing a Business* , Fourth Edition, by Pratt, Reilly and Schweihs, page 169.

5 $$B_L = B_U [1+(1-t)(W_d/W_e)]$$

6 where B_U = Beta unlevered

7 B_L = Beta levered

8 t = tax rate for company

9 W_d = Percent debt in the capital structure

10 W_e = Percent equity in the capital structure

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TABLE C: CAPITAL ASSET PRICING MODEL (USING CRSP SIZE PREMIA) [1]

Row No.	Column A Methodology	Column B	Column C	Column D	Column E Amount	Column F Notes
1	**Step One:**		Risk Free Investment Rate		2.01%	Risk Free Rate (RFR) was selected, representing the 20-Year Treasury Constant Maturity Rate available on 07/1/2021 at the Federal Reserve Bank.
2	**Step Two:**	*Plus*	Equity Risk Premium [2]		5.89%	
3		*Times*	Beta		0.87	Table B: Levered Beta
4					5.1%	Valuation Date Average Market Return
5	**Step Three:**	*Plus*	Size Premium [3]		1.95%	CRSP Size Premium (Return in Excess of CAPM), Decile 6
6	**Step Four:**	*Equals*			9.1%	Cost of Equity

7 ***Footnotes:***

8 [1] Source: Business Valuation Resources Cost of Capital Professional - Assumed $2.4B Rate Base per discussions about assets included in scope.

9 [2] Historical ERP calculated using the S&P 500 average annual return of 11.81% derived from CRSP data for the 1928 - 2020 period and a 5.92% 20-year T-Bond average annual return (Reconstructed) for the same timeframe.

10 [3] The Size Premium was based on CRSP decile 6 which included 251 firms with an equity market capitalization size ranging from $1,598,179,000 to $2,445,693,000 in Q4 2020. The mean annual return for the S&P 500 for the same period was 11.81%. The difference between the CRSP mean decile return and the S&P 500 mean return was adjusted by the beta of CRSP decile 6 of 1.18.

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TABLE D: WEIGHTED AVERAGE COST OF CAPITAL (USING CRSP SIZE PREMIA)

	Column A	Column B	Column C	Column D	Column E
Row No.	Description				Amount
1	Percent Debt in Capital Structure [1]				55.4%
2	Cost of Debt [2]				4.26%
3	Effective Tax Rate [3]				27.98%
4	Percent Equity in Capital Structure				44.6%
5	Cost of Equity [4]				9.1%
6	**Weighted Average Cost of Capital [5]**				**5.75%**

7	[1]	Average capital structure based on utility proxy group. See Table A.
8	[2]	Corporate Bond Rates, Baa (%) - 2022 Forecast Annual Average - Blue Chip Economic Indicators - Volume 37, No. 2 (quarterly supplement)
9	[3]	Combined 21% federal and 8.84% state income tax rates
10	[4]	Cost of equity using the Capital Asset Pricing Model in Table C
11	[5]	$WACC = W_d(k_d)(1-t)+W_e(k_e)$
12		where
13		W_d = Percent debt in the capital structure
14		k_d = Cost of debt
15		t = tax rate
16		W_e = Percent equity in the capital structure
17		k_e = Cost of equity

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TABLE E: CRSP Capital Asset Pricing Model Assumptions

The 07/01/2021 cost of capital analysis was completed on 04/03/2026 using the Q4 2025 Cost of Capital Professional study. Returns were selected and calculated for the time period ranging from 1928 to 2020 using an arithmetic mean.
The Capital Asset Pricing Model was selected based on professional judgment for the calculation of the cost of equity capital. The various components selected are as follow:
CoE = RFR + (Beta*ERP) + SP
9.08% = 2.01% + [0.87 * 5.89%] + 1.95%
A **2.01%** Risk Free Rate (RFR) was selected, representing the 20-Year Treasury Constant Maturity Rate available on 07/01/2021 at the Federal Reserve Bank.
A beta of **0.87** was selected based on professional judgment. Beta from hypothetical peer group.
A **5.89%** Equity Risk Premium (ERP) was selected, representing the Historical ERP calculated using the S&P 500 average annual return of 11.81% derived from CRSP data for the 1928 - 2020 period and a 5.92% 20-year T-Bond average annual return (Reconstructed) for the same timeframe.
A **1.95%** Size Premium (SP) was selected. The Size Premium was based on CRSP decile 6 which included 251 firms with an equity market capitalization size ranging from $1,598,179,000 to $2,445,693,000 in Q4 2020. The mean annual return for the S&P 500 for the same period was 11.81%. The difference between the CRSP mean decile return and the S&P 500 mean return was adjusted by the beta of CRSP decile 6 of 1.18.
Cost of Capital Professional returned a **9.08%** cost of equity capital as of 07/01/2021 based on the Capital Asset Pricing Model.
In addition, the Weighted Average Cost of Capital (WACC) was also computed. Given the components selected the formula used is as follows:
WACC = (CoE * We) + (KdPreTax * (1 - t) * Wd)
5.75% = (9.08% * 44.60%) + (4.26% * (1 - 27.98%) * 55.40%)

A debt weight (Wd) of **55.40%** was selected.

The equity weight (We) of **44.60%** is the complement of the debt weight (i.e. 1 minus debt weight (Wd) equals equity weight).

A borrowing rate (pre-tax cost of debt) of **4.26%** was selected.

A tax rate of **27.98%** was selected.

Cost of Capital Professional returned a **5.75%** WACC as of 07/01/2021.

Disclaimer: Items included in the analysis based on professional judgment were not provided by Cost of Capital Professional. Additionally, the cost of equity model (Build-Up or CAPM) is chosen by the professional based on professional judgment using skill, knowledge, experience, education, and training.

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TABLE F: CAPITAL ASSET PRICING MODEL (USING KROLL RISK PREMIA) [1]

Row No.	Column A Methodology	Column B	Column C	Column D	Column E Amount	Column F Notes
1	**Step One:**		Risk Free Investment Rate [1]		2.5%	Kroll Normalized Risk Free Rate
2	**Step Two:**	*Plus*	Equity Risk Premium [1]		5.5%	Kroll Recommended U.S. Equity Risk Premium
3		*Times*	Beta		0.87	Table B: Levered Beta
4					4.8%	Valuation Date Average Market Return
5	**Step Three:**	*Plus*	Size Premium [1]		3.6%	Kroll Size Premium (Portfolio 17)
6	**Step Four:**	*Equals*			**10.9%**	Cost of Equity

7 ***Footnotes:***

8 [1] Source: Kroll Cost of Capital Navigator - Assumed $2.4B Rate Base per discussions about assets included in scope.

Appraisal of the Electric System Owned by Pacific Gas and Electric and Serving the City and County of San Francisco
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TABLE G: WEIGHTED AVERAGE COST OF CAPITAL (USING KROLL RISK PREMIA)

	Column A	Column B	Column C	Column D
Row No.	Description			Amount
1	Percent Debt in Capital Structure [1]			55.4%
2	Cost of Debt [2]			4.26%
3	Tax Rate [3]			27.98%
4	Percent Equity in Capital Structure			44.6%
5	Cost of Equity [4]			10.9%
6	**Weighted Average Cost of Capital [5]**			**6.56%**

Footnotes:

7 [1] Average capital structure based on utility proxy group. See Table A.

8 [2] Corporate Bond Rates, Baa (%) - 2022 Forecast Annual Average - Blue Chip Economic Indicators - Volume 37, No. 2 (quarterly supplement)

9 [3] Combined 21% federal and 8.84% state income tax rates

10 [4] Cost of equity using the Capital Asset Pricing Model in Table F.

11 [5] $WACC = W_d(k_d)(1-t)+W_e(k_e)$

12 where

13 W_d = Percent debt in the capital structure

14 k_d = Cost of debt

15 t = tax rate

16 W_e = Percent equity in the capital structure

17 k_e = Cost of equity

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Valuation of Hypothetical IOU Transmission and Distribution Assets
Estimation of Weighted Average Cost of Capital as of July 1, 2021

TABLE H: WEIGHTED AVERAGE COST OF CAPITAL

Row No.	Column A Description	Column B	Column C	Column D Amount
1	CRSP Risk Premia WACC			5.8%
2	Kroll Risk Premia WACC			6.6%
3	**Average Weighted Cost of Capital** [1]			**6.2%**
	Footnotes:			
4	[1] Average WACC = (CRSP WACC + Kroll WACC) / 2			

Attachment D
SALES COMPARISON APPROACH: GUIDELINE SALE TRANSACTIONS METHOD

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Analysis of Guideline Sales Transactions
Electric Utility Property

Transaction Number	Year	State	Buyer	Type (1)	Seller	Type (1)	Asset (2)	Type of Transaction	Sale Price	Net Plant	Price/ Net Plant
1	2011	CA	California Pacific Electric Co. (d/b/a Liberty Energy)	IOU	Sierra Pacific Power Co. (d/b/a NV Energy)	IOU	G,D	Cash	$136,418,000	$123,599,000	1.10
2	2011	OH	AES Corporation	IOU	DPL, Inc. (Dayton Power & Light Co.)	IOU	G,T,D	Cash and assumption of debt	$4,719,000,000	$2,965,600,000	1.59
3	2012	NH	Liberty Energy NH	PRV	Granite State Electric Company (National Grid)	IOU	G, T, D	Cash	$83,000,000	$81,380,000	1.02
4	2015	IA, MN	Southern Minnesota Energy Cooperative	CP	Interstate Power & Light (Alliant)	IOU	D	Cash	$129,000,000	$105,189,000	1.23
5	2017	MO, KS, OK, AR	Liberty Utilities Co. (Algonquin)	PRV	The Empire District Electric Company	IOU	Electric G,T D, natural gas, and water	Cash and assumption of debt	$2,348,510,000	$1,910,800,000	1.23
6	2019	TX	AEP Texas, Inc.	IOU	Oncor Electric Delivery Company, LLC	IOU	D	Cash	$17,956,000	$17,956,000	1.00
7	2019	FL	NextEra Energy	IOU	Gulf Power Company (Southern Company)	IOU	G, T, D	Cash and assumption of debt	$5,657,000,000	$3,835,874,052	1.47
8	2020	ME	ENMAX	IOU	Emera Maine	IOU	T, D	Cash and assumption of debt	$1,295,000,000	$1,066,820,818	1.21
9	2020	TN	Middle Tennessee Electric Membership Corporation	CP	Murfreesboro Electric Department	M	D	Cash	$202,000,000	$152,382,078	1.33
10	2020	AK	Chugach Electric Association	CP	Anchorage Municipal Light & Power	M	G, T, D	Cash	$986,000,000	$703,166,000	1.40
11	2020	TX	JP Morgan Chase	PRV	El Paso Electric Company	IOU	G, T, D	Cash and assumption of debt	$4,370,650,000	$3,120,858,000	1.40
12	2022	RI	PPL Corporation	IOU	Narragansett Electric Company (National Grid)	IOU	Electric T&D, Gas D	Cash and assumption of debt	$5,320,000,000	$3,734,291,000	1.42

Analysis of Guideline Sales Transactions
Electric Utility Property

Summary of Sales Data	No.
Total Sales from IOU to IOU	6
Total Sales from IOU to Municipal Utility	0
Total Sales from IOU to Public Utility District	0
Total Sales IOU to Cooperative	1
Total Sales IOU to Private Investor	3
Total Sales from Municipal Utility to IOU	0
Total Sales from Municipal Utility to Cooperative	2
Total Sales from Public Utility District to IOU	0
Total Sales from Cooperative to IOU	0
Total Sales from Private Investor to IOU	0
Total Number of Sales	12

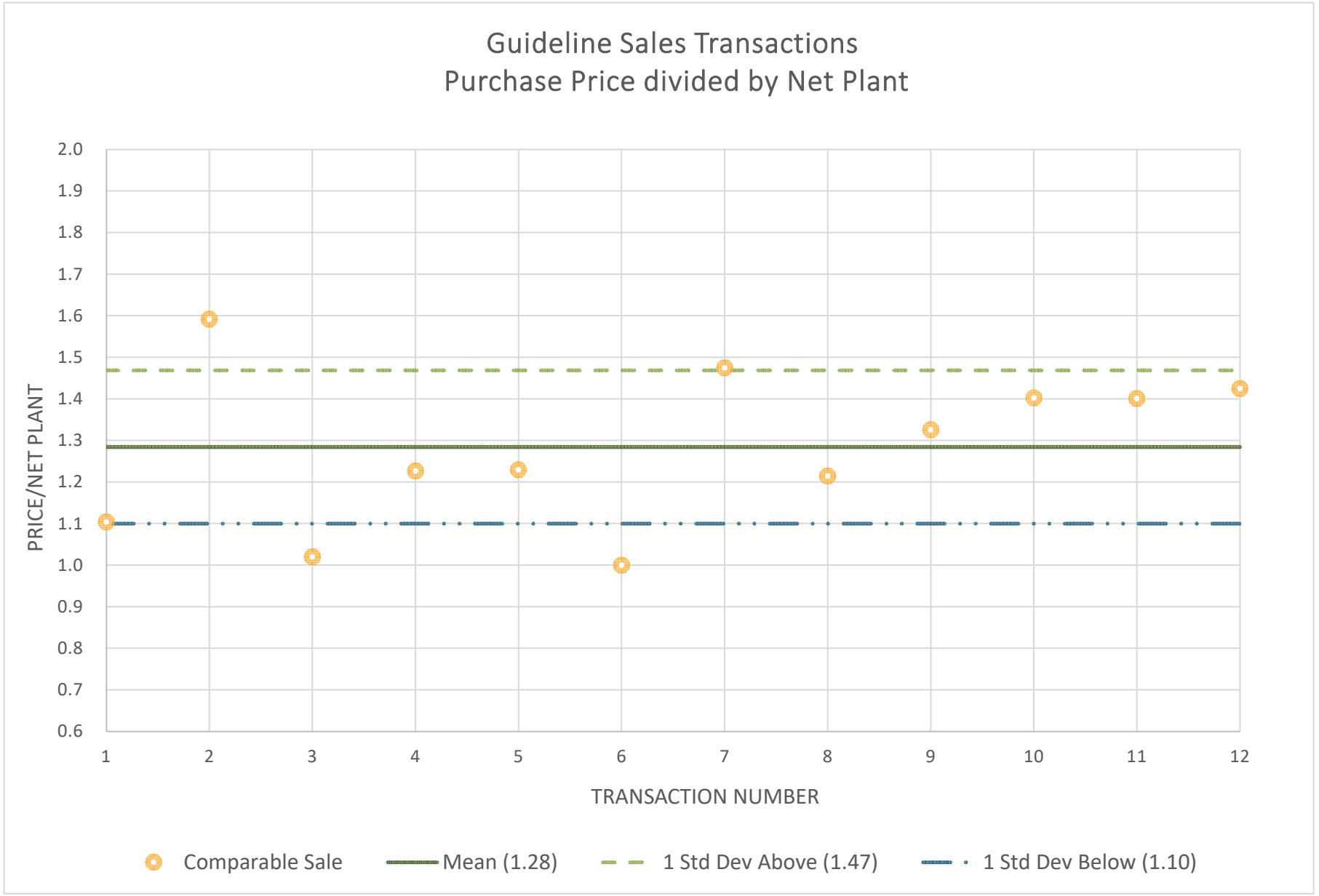
Analysis of Price/Net Plant	All Sales
High	1.59
Low	1.00
Mean	1.28
Median	1.28
Standard Dev. Above Mean	1.47
Standard Dev. Below Mean	1.10

[1] IOU - Investor-owned Utility; M - Municipal; CP - Cooperative; PUD - Public Utility District, PRV - Private Investor

[2] G - Generation; T - Transmission; D - Distribution

San Francisco Electric System $ 2,403,258,000 (OCLD from Cost Approach)

Statistical Measure	Sales Price/ Net Plant	Subject Company
High	1.59	$ 3,824,175,000
Low	1.00	2,403,258,000
Mean	1.28	3,086,563,000
Median	1.28	3,069,786,000
1 Std Dev above Mean	1.47	3,529,702,000
1 Std Dev below Mean	1.10	2,643,424,000


Guideline Sales Transactions
Purchase Price divided by Net Plant
PRICE/NET PLANT
2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
1
2
3
4
5
6
7
8
9
10
11
12
TRANSACTION NUMBER
Comparable Sale
Mean (1.28)
1 Std Dev Above (1.47)
1 Std Dev Below (1.10)

Attachment E
QUALIFICATIONS AND EXPERIENCE OF APPRAISAL TEAM

Grant Rabon, ASA | Partner

B.S. in Chemical Engineering, Texas A&M University
M.B.A., University of Texas at Austin

Mr. Rabon is an Accredited Senior Appraiser (ASA) of Public Utility property certified by the American Society of Appraisers. He has worked in the public utility industry since 2005 managing electric, natural gas, water, wastewater, and solid waste utility projects designed to safeguard clients' financial integrity primarily through the performance of financial risk assessments and feasibility studies, valuations/appraisals, litigation support, and comprehensive cost of service analyses.

Mr. Rabon has conducted valuations as well as fair market value appraisals to determine an indication of value for acquisitions/dispositions, or to evaluate municipalization or privatization of utilities. His experience also includes service area valuations to determine compensation for decertification of areas covered by certificates of convenience and necessity.

Zachary Wright, ASA, CDP, CRRA | Partner

B.B.A., Finance, University of Tennessee, Knoxville
M.B.A., Belmont University

Mr. Wright is an Accredited Senior Appraiser (ASA), Machinery and Technical Specialties by the American Society of Appraisers, and a Certified Depreciation Professional (CDP) by the Society of Depreciation Professionals (SDP), and a Certified Rate of Return Analyst (CRRA) by the Society of Utility and Regulatory Financial Analysts (SURFA). He has over 16 years of experience performing appraisals, financial analyses, depreciation, cost of service and rate design studies. Before joining NewGen, he worked as a Commercial Credit Analyst and has experience in corporate finance, pro forma financial analysis, financial modeling, underwriting, banking, and strategic and capital planning.

Nicholas Coomer, CDP, CRRA | Manager

B.B.A., Belmont University
M.B.A., Belmont University

Mr. Coomer is a Certified Depreciation Professional through the Society of Depreciation Professionals and a Certified Rate of Return Analyst recognized by the Society of Utility and Regulatory Financial Analysts. He is a member of the American Society of Appraisers and currently serves as Vice President and Treasurer for the Middle Tennessee Chapter. Mr. Coomer joined NewGen as a Consultant in September 2021. During his tenure, he has performed valuations and fair market appraisals to determine an indication of value for acquisitions/dispositions. His experience also includes financial modeling, depreciation studies, rate of return analysis, and cost of service and rate design analysis.

APPENDIX III

Excerpted Supplemental PG&E Response to DR-CCSF_04-Q04, attachment PGE000082649

[CONFIDENTIAL]